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ABSTRACT

This theme issue explores the development of memory and creativity in very young children. The first article, "The Guy Who Went Up the Steep Nicken: The Emergence of Story Telling during the First Three Years" (Susan Engel), describes the developmental stages of children's story telling. The reasons children tell stories and strategies for encouraging story telling are provided. "Shrinking Trolls and Expanding Minds: How Very Young Children Learn To Understand and Use Symbols" (Judy DeLoache) discusses research which indicates that children only gradually appreciate that entities should be responded to as representations of something other than themselves. A conceptual model of young children's understanding and use of symbols is presented. In "Children's Memory for Personal Experience: Individual and Cultural Variations in Development" (Katherine Nelson and others), different kinds of memory are described as well as the impact of talking about an experience on memory. The influences of parenting style and cultural factors on children's retention of memories are also explored. "Pain and Creativity: The Complex Interplay" (Barbara Young) investigates the role that suffering plays in creativity in early childhood. Spontaneous or natural creativity in young children is described in "Creativity in the Youngest" (Lois Barclay Murphy). (Individual articles contain references.) (CR)

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ZERO TO THREE

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Barbara Hadley

The Guy Who Went Up The Steep Nicken:

The Emergence of Story Telling During the First Three Years

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EC 305346

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My 2 1/2 year old son, Sam, eagerly begins to tell a story he has heard and told several times before. He tells it to one of his brothers, who already knows the story. "When I was a born baby? (voice goes up as if asking a question) Jake was carrying me down the stairs and he, and he, he . . . (he turns to me) Mom, you tell the rest." At 2 ½ Sam is already a budding raconteur, eager to share experiences from his past.

continued on page 3

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Editor's Note

This issue of *Zero to Three* explores the development of memory and creativity in very young children. Contributors show us how infants' and toddlers' enchantment with the world around them, their developing cognitive capacities, and their need to cope with pain and suffering lead them to creative expression. How this happens depends on infants' and toddlers' specific experiences with their caregivers. In the earliest years of life, children begin to participate in some of the most quintessential of human activities—mastering the symbols of their culture, creating and telling stories, and using movement, music, drawing materials, and any other available vehicle for creative expression. Young children first express themselves in the moment, and then use symbolic expression to transcend time and space.

Psychologists Susan Engel, Judy DeLoache, Katherine Nelson, and Lois Barclay Murphy and their colleagues, and psychoanalyst Barbara Young are clearly people who are very much in tune with young children's hearts and minds. Their experimental research and clinical observations are systematic, meticulous, and yet playful—a continuation, perhaps, of discoveries that began in their own earliest years. Their ways of looking and listening are creative, whether they are using eyes and ears or tape recorders and cameras. And, happily for us, each of our contributors is an artist as well as a scientist. Their stories, their photographs, and even their experimental designs inform, delight, and inspire us to work so that the young children in our care can experience the joy and the power of creation, and to live, ourselves, as creatively as we can.

Emily Fenichel, Editor

Contents

1 The Guy Who Went Up the Steep Nicken: The Emergence of Story Telling during the First Three Years —*Susan Engel*

10 Shrinking Trolls and Expanding Minds: How Very Young Children Learn To Understand and Use Symbols —*Judy DeLoache*

17 Children's Memory for Personal Experience: Individual and Cultural Variations in Development —*Katherine Nelson, Faye Fried Walkenfeld,* and *Robin Goldstein*

26 Pain and Creativity: The Complex Interplay —*Barbara Young*

35 Creativity in the Youngest —*Lois Barclay Murphy*

37 Benjamin Spock Receives Dolley Madison Award

37 Publications

40 Videotapes

41 Conference Call

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The Guy Who Went Up The Steep Nicken
continued from page 1

In this case he is sharing an anecdote that has been told to him by others in the family, an event he couldn't possibly remember. As he has heard me tell it many times, at 2 weeks of age, his nine-year-old brother was carrying him down the stairs and slipped and fell all the way down. I watched from a distance, horrified, as they disappeared behind the staircase wall and bumped their way down. I ran over to them at the bottom of the stairs, where Jake sat holding his baby brother, sobbing and saying to me, "Its alright, he's okay, I didn't let him go, he's fine."

One can imagine the different feelings and thoughts this dramatic story engenders in each family member. What is so fascinating is that Sam, at age 2 1/2, already knows it is a powerful story and wants to tell it again. He no doubt finds it more interesting than other stories he might have heard, because he is a central character in it. And though he cannot yet tell the whole story on his own, he begins in proper narrative form ". . . When I was a born baby . . .," setting the scene in time and identifying the central character.

Story telling is perhaps the most powerful way that human beings organize experience. Some have argued that narrative thinking is the optimum form of thinking for learning and expressing what we know about ourselves and about other people (Bruner 1986, Schank 1990). Sam's retelling of his adventure falling down the stairs captures some of this. The story not only organizes an event from our past. Both the story and the telling of the story convey important information about relationships and feelings in our family.

By the time most children are three or four they can tell many kinds of stories: autobiography, fiction, and reports they have overheard. They can tell stories with other people, and to other people. By the time most children are adolescents, stories both formal, conversational, and unspoken, pervade daily life. In adulthood narratives provide a form for organizing huge amounts of information and serve a host of powerful psychological and social functions. What goes on in the first three years to prepare us for this astonishing array of abilities?

How is it that children are born with no language, let alone narrative skills, but that within 24-30 months most have learned the rudiments of story telling: how to sequence events, how to set action in place and time, and organize a story around characters. Where did Sam learn that telling a story is a good way of getting the attention of others, and that you can get a lot of social and emotional mileage out of telling a good story? How and where did he figure out what his community deems to be a good story?

Until about 10 years ago the common wisdom among early childhood specialists was that children are rooted in the here and now. Research had suggested that toddlers are only interested in what they can see and do at the moment, unable to think about things that have happened in the past or will happen in the future. But over the last 15 years a number of studies have shown that, in some cultures at least, parents and their babies talk about the past and future much more frequently and in greater depth than we had ever expected (Nelson 1989, Engel 1995).

At about the same time that research started to show that parents and their toddlers told stories and talked about the past, we were also learning how important personal interaction is as a setting for all kinds of cognitive activities. Studies have shown us that social interaction is not only the site of emerging abilities such as conversation and story telling, but that the input of conversational partners can have a strong influence on what a child learns (Snow and Ferguson 1977, Miller and Sperry 1988) Studies have shown, for instance, that communities (and cultures) vary not only in how much they talk about the personal past, but in what kinds of stories about the past they value (Brice Heath 1983).

Before taking a look at the developmental path of story telling, it might be helpful to outline a working definition of narrative. As anyone who has done developmental research will recognize, one's ideas about the fully developed version of a behavior or process shapes what one will find in a developmental search for its beginnings. For instance, Piaget's model of fully developed scientific thinking strongly influenced what he saw when observing infants.

For my purposes, a story is a description of an event, set in a time and place. Things happen to someone, and they happen over time. The sequence of events must be meaningful; in other words there must be a theme that emerges through the chronological account, there must be at least a hint of a problem or tension, and the resolution of that problem. Choose any great and lasting novel, or well loved story, whether it be *Great Expectations* or the story of Noah's Ark, and it fits these criteria. This then, is the basic narrative structure that children must master. And it turns out children begin using this narrative structure even before they can do it with words. As you will see in the following pages, the first narratives look quite different from the narratives of the 15-or 50-year- old. But all human abilities have to start somewhere.

Play and narrative

Just as Bruner suggested that grammatical structure is embedded in the early play actions and routines of young children, so too the elements of storytelling are

Barbara Young

implicit in the play scenarios of toddlers. A 20-month-old girl, Sarah, holds a small figure of a horse in her hand. She moves the horse as if he is running, and then drops him. "Oh no. Poor horsey. That horsey is sick. But here comes his mommy. His mommy gave him medicine and made him better." While this may not be Oliver Twist, it is a story. Sara is describing a sequence of actions. The actions have an underlying theme that is meaningful. There are characters in her story, there is emotion, and there is an ending.

Even children who do not narrate their play are enacting a narrative with their gestures. It has been shown that children engage in this kind of symbolic play more and in richer ways when they do it with a facilitating adult, usually a parent or caregiver. A typical interaction consists of a young child moving a toy around, guiding the toy or toys through a sequence of actions. Often it is the adult who provides the language that highlights the narrative form embedded within the child's play gestures. For instance, a 22-month-old boy moves two figures on a table top. His father says, " Oh look. Are those knights fighting? Oh look there, the green knight pierced the blue knight. Hurrah. Sir Greenie is the champion!"

Reminiscing with others

The other primary way that young children acquire and explore the narrative form is by talking about the past with their parents.

Just as with symbolic play, telling stories about the past also seem to take place in a kind of intersubjective transaction in which child and adult collaboratively build the story. The youngest reminiscer depends on his partner to create a description of the past. Equipped with an innate drive to tell stories, and the most rudimentary tools for doing so, the youngest story teller looks to the adult to evoke the past so that the child can contemplate, contribute, go over, and ultimately internalize a narrative rendering of his experience.

Long before a baby can refer to his or her past, or even converse with another about the past, parents talk to their children about what has happened.

A mother looks at her fourteen-month-old daughter, and holds up a photograph of them standing under a tree with ice cream cones. "Remember when we went to Friendly's and got ice cream? That was fun wasn't it? You got white ice cream with colored sprinkles. And there were sprinkles all over your face. We laughed, didn't we?"

What is happening here? The mother is teaching her daughter that it is interesting, useful, worthwhile, and satisfying to reminisce. She is helping her child to build up a sense of what Ulric Neisser calls the extended self-knowledge of oneself across time. It is this mental self that gives us each a sense of continuity between the past, the present and the future. The mother is also building up a shared past with her child. Parents and their toddlers tend to talk about experiences they have had together. Not only does this enable them to collaborate in the telling, it is also one of the ways we build and

maintain intimacy (even into adulthood). When this mother talks about the ice cream incident she is also teaching her child what makes a good story. Interchanges like this can be found wherever parents and their young children are together. But the nature of the collaboration changes as the child develops.

An early stage

At a first stage children are attentive and responsive observers to their parents' tales. They not only watch their mother's face carefully as she tells stories of personal experience, they nod, repeat a word now and then as a way of showing interest and or keeping the mother going, and respond with emotion, sometimes anticipating emotion in a well learned story. An interesting detail that will be familiar to any adult who has spent a great deal of time with the same child is that children love to hear the same story over and over again. From a cognitive as well as emotional perspective there are good reasons for this. My son liked to hear the story of falling down the stairs over and over again, not only for the slight dramatic buzz and pleasure of resolution it gave him (just like a game of peek-a-boo for a nine month old). It also gives him a chance to internalize the story and master the pieces.

The following example is taken from a study I conducted several years ago, titled Learning To Reminisce. The goal of the study was to trace the emergence of autobiographical conversation. We tape recorded mothers and their 16-month-old toddlers in their homes, every other week for eight months (until the children were two years old). The following example, taken from the study, demonstrates the uses children make of repetition. In this collaborated story the little girl masters more and more of the material as she and her mother repeat it.

Faith is a two year old girl sitting in the kitchen talking with her mother.

Mother: I'm trying to think back about Snork. We got Snork at the toy store, remember? We went to the toy store and we saw a great big Snork at the toy store.
Faith: See it?
Mother: You don't remember?
Faith: See a great big Snork?
Mother: I have to tell you about it. It was a long time ago. Faith and Mommy and Daddy all went to the toy store and we saw a big, big Snork.
Faith: A little Snork?
Mother: And there was a little, little Snork. And remember what the big Snork was doing? The big Snork was waving at Faith.
Faith: Then?
Mother: And the little Snork—you know what the little Snork did?
Faith: Hm?
Mother: The little Snork talked to Daddy and said,(here mother uses squeaky voice) "I wanna go with Faith."
Faith: Then?
Mother: And so when we left the toy store, after we had looked at all the toys, we left the toy store—Daddy looked in his pocket and saw Snork was there! And he gave it to Faith.
Faith: Again.
Mother: One day Faith and Mommy and Daddy all went . . . to . . . the . . . grocery store?
Faith: Toy store!
Mother Toy store! And what did we see?
Faith: A big Snork and a little Snork and a big, big one and a little, little Big Bird.
Mother: Oh! What were the big Snork and Big Bird doing? . . .
Little Snork. Remember what the little Snork did? What did that little Snork do?
Faith: Talk at—talk to . . . talk to . . . Mom, have some more coffee.
Mother: No, thanks. I'm drinking juice, actually.
Faith: Mommy, tell story about toy store.
Mother: Okay, one day Faith and Mommy and Daddy all went to the toy store and when we got there we saw a big Snork and the Snork was waving at you. There was a big Snork and there was a little Snork.
Faith: Snork talk to Daddy.
Mother: Yeah, and what did that little Snork say?
Faith: (in a squeaky voice) I want to go to . . . I want to go to. . . .
Mother: Mmm. So what happened after we came out of the toy store?
(they go on to another discussion).

A second stage

At a later stage children begin to participate, adding elements to the story, taking on greater pieces of the authorial responsibility. The mother of George, 30 months, says,

"Georgy, wasn't that fun going to the lake?"
George nods attentively. The mother continues, "You loved the water didn't you? You weren't scared one little bit, were you?"
George offers, "I said Wow".
His mother replies, "Yes that's right. You jumped right in and the water was very cold, and you shouted out, "WOW," didn't you? That was funny.
Georgy adds more, "There was fishes."
His mother again elaborates his contributions. "Oh yes, there were lovely fishes weren't there? And we tried to catch one. But they were too fast for us."

At this point, mother and child construct a story across turns. Though Georgy (or any other toddler) may not yet be able to organize a story, frame it in time or place, or know the syntax for representing past experience, he can join in his mother's description, adding information, details, and perspective at just the right

point. Together the conversational pair constructs a story.

A third stage

Finally, by the time children are three they can tell a whole story by themselves, or contribute pieces to a parent's story that the parent didn't even know about.

While the youngest story tellers (18-36 months) depend on conversation and a strong conversational partner to construct stories, slightly older children are eager to recount stories on their own. By the time children are three they have a well internalized notion of what it means to tell a story, and what the basic requirements of a story are. My son Sam, for instance, at 2 ½ says, many times a day, "Do you wanna hear THIS story?" and proceeds to tells stories such as the following:

"When Ariel was swimming he saw a huge humongous sting ray and it stung him and he had to go to the hospital." Typical of this stage, Sam's stories often draw on some kernel of a real event (He knows someone named Ariel who did in fact take kayaking trips in Mexico, where there are sting rays). A different man, related to Ariel, did in fact get stung by something in the water. Sam has mixed up these two people and events, but with good reason, and then added a dramatic touch, that Ariel had to go to the hospital (totally made up). But Sam also shows that he understands the social, linguistic and cognitive requirements of the story telling situation.

It is only at this point that children actually negotiate the past with their parents, suggesting that it is only now that they have an individual internal representation of the experience, separate from the one they might co-construct with a parent.

Even at this point, children are quite tied into the intersubjective frame work. It is typical for a three-year-old to bring up an event from the past and feel quite frustrated and distraught when a parent not only doesn't recall the episode but cannot echo and elaborate in a way that fills out and reflects back the story.

Not all parents and children tell stories equally frequently, for the same purposes, or in the same style. What are some of the individual differences we have found in the way parents and children tell stories?

Reminiscers and practical rememberers

In our study Learning to Reminisce, we found that some mothers talk a great deal about the past with their toddlers. They tell fairly well embellished stories about the past that include many details. Parent and child take many conversational turns in describing a shared experience. Perhaps most interesting, these mother/child couples seem to talk about the past for no other reason than because it is an enjoyable, interesting thing to do together. For instance a child points to a flower in a vase on the table. The mother says, "Isn't that a lovely flower? Remember when we picked that flower? We walked way out into the field. The grass was wet, and you wanted to take off your shoes. Do you remember what else we found out there?

The child offers, "Slug!"

And the mother continues her story, "Oh yes. That was really slimy wasn't it? Ick. We hated that slug." All the while her child is staring at her attentively, sharing in this review of experience.

On the other hand, some mothers and their young children seem to refer to the past fairly infrequently. These mother/child couples tell short, spare stories, with few conversational turns, and few details. Again, perhaps most revealingly, they usually only refer to the past as a way of explaining or clarifying something they are doing in the present. For instance, a practical remembering mother might say to her toddler, "Find your sneaker, Zoe. Did you hide it yesterday? I think you put it under the chair."

We found that by the time these children were 3 ½ the reminiscers were more able to contribute new information to conversations about the past, keep a conversation going longer, and more likely to initiate conversations about that past. In other words, it appeared that the style the couple had at the outset of the study predicted how much and how the child would talk about the past 6 months later.

Having found stylistic differences in the way toddlers and their parents talked about the past, we decided to see if these differences showed up in the peer interactions of preschoolers. We observed three- and four-year olds in a day care setting and found that the children did in fact use the two narrative styles: reminiscing and practical remembering. Some research has indicated that shy children are less likely to be reminiscers than outgoing children. What we don't know is what causes what. That is, perhaps if you are not adept at story telling you become shy. Or if you are good at story telling you become outgoing. Perhaps the two characteristics tend to coincide, or perhaps shyness inhibits story telling. Any one of these possibilities would be fascinating to explore further.

By the time children reach their fourth year they begin to explore the array of narrative genres available to them. At this point, one striking characteristic is their sensitive ear for style. Children are quite attuned to different kinds of formats, tropes, and other stylistic aspects of story telling. They reveal this sensitivity in the narratives they tell in response to ones that they have heard. For instance, in one study children heard poems and stories written by authors such as Emily Dickinson and Sylvia Plath. When invited to write their own stories in response, many of the children incorporated the rhyming patterns, formats and metaphoric imagery used by Plath, Dickinson and others (Engel, 1995). A perfect example of this is children's eagerness to tell knock knock jokes long before they really understand the mechanics of such a joke. They capture, and use, the format and sound of the joke, filling in with

David Kerr/Photo Agora

their own content. Before children can explain a metaphor, or make up ones that are easily interpretable, they get the basic structure and love exploring its possibilities. This is demonstrated vividly in Kenneth Koch's classic book on writing with children (1973).

A three-year-old girl, Justine, paints with water colors. Her mother asks her if she would like to write anything to go with her picture. The young painter nods immediately and dictates, "The guy who went up the steep nicken and then he fell down and hurt his nicken on the schnocks of the nicks."

This example shows how alive the narrative form is for young children. They are equally consumed by what the story is about, how it is told, and the reasons it is told. The process of telling the story is often as satisfying and psychologically rewarding as the story one ends up with. In the example above, the process of making up words and creating alliterations is as important as the content of the story. This is a child who has been encouraged to play with language, and to use stories as a form of play.

A three-year-old boy, seemingly out of nowhere, recounts to an adult friend:

"'You know what?' said the mommy. 'You have a stomach ache.' 'No that's not true,' said the little boy. He put his nose right up to his mommy, 'I have a bear on my tummy.'"

This story, though brief, is remarkably complex. He tells the story in terms of tightly interwoven dialogue. The characters in the story respond in contingent sentences (sentences that relate to one another both grammatically and in terms of content). Moreover, the dialogue is used not just as an elaboration or detour, but to build the story. This story-through-dialogue conveys a narrative "problem"—the mother's belief that the boy has a stomach ache. The story ends with a surprising turn of events (the bear on the stomach) that also serves as a resolution to the dramatic problem. This child, as it happens, has been talked and read to a great deal since infancy. It is possible that his precocious mastery and use of narrative techniques comes from his exposure to a wide array of narrative material.

It turns out that story telling is the single strongest predictor of literacy. Gordon Wells has shown in his wonderful study of Bristol children that those who told and heard stories at home under the age of four were the most likely to have ease and interest in learning to read once they got to school (Wells 1986).

What story telling can do

A 2 1/2 year old recounts to an uncle, "We were on the plane. And a man yelled at Dan (his brother). And Mommy got mad at the man. And after we sat down, I said to Mommy, 'That man was a jerk. Right mommy?' And everyone laughed." His audience (his uncle) explodes in laughter.

When a child tells a story, he not only means something, feels something, refers to an event; most important, he DOES something.

What was this child doing? He was sharing part of his life experience, entertaining, surprising and amusing his uncle, practicing his skills as a raconteur, and establishing his identity as brave and audacious. Austin's brilliant book, *How To Do Things With Words*, showed us that words not only mean and refer to things, they do things. We can promise, threaten, marry, decree, etc. The same is true of stories. People do things with stories.

One of the things they do is to narrate an inner life, and an identity, and share that inner life and identity with others.

In studies of Baltimore families talking about the past, Peggy Miller showed that children often describe upsetting experiences to their parents. The stories create two levels of emotional transaction: a replay of what-

ever they went through, and whatever emotional response they elicit upon telling the story (Miller and Sperry 1986). Bruner has suggested that narratives act as cooling vessels, in which emotionally and cognitively powerful experiences can be reconstructed with less impact than they originally had. When children retell upsetting experiences they benefit from the distance the retelling gives them. Similarly the adult's reaction has the potential to be vivid enough to make the retelling cathartic, and at the same time calm enough to make the retelling safe, and helpful.

As I have described elsewhere, story telling is an essential, perhaps the essential activity of human beings (Engel, 1995). It serves a myriad of functions for the young child. Stories allow children to learn about their culture, but also serve as a kind of passport into the culture. Children tell stories as a way of solving emotional, cognitive and social puzzles and to sort out problems or concerns. Perhaps most importantly, stories are one of the fundamental ways in which we each create an extended self. The developing child's cumulative repertoire of stories gives him or her a sense of self across time and situation. As we tell stories about our selves we weave together the underlying constant inner self with the many different selves that emerge in context, Williams James' experiencing "I" and many "mes".

Children are not only "set" to tell stories but highly attuned to the response of their listeners, eager to be good story tellers, driven to tell about what matters to them, and to communicate who they are. Interesting to think that by the time children are $2^1/_2$, an age we have traditionally thought of as physical (i.e., sensory motor) children seem so absorbed with shaping experience into stories, and using those stories to affect the people around him. As they create an identity with their stories, children also reveal their inner lives. If you want to know what a child thinks abou,t listen to his stories.

One might ask, then, what can we do to promote story telling during the early years? There are three kinds of experience that promote storytelling ability during the first three years. Having conversations, plenty of them, and long ones, with adults. Talking about the past and the future, even before your child can do this on his or her own. Hearing and participating in stories of all kinds.

Let me elaborate on each of these ideas. As anyone knows who lives or works with young children, sustained conversation can be a rare commodity in any kind of group setting. Whether its breakfast with three siblings or playtime at day care, having a conversation that involves more than three turns (someone speaks, the other responds, the first person speaks again) can be hard to come by. This is particularly true with children between two and four years old whose conversational skills can be uneven. Typically a three-year-old offers a tidbit to get a conversation going, but depends on the adult to use that tidbit as a basis for a longer fuller discussion. When a young child announces, "I went to a museum and saw a shark," it is easy to nod as you continue what you were doing, or say "You did? That's nice." But these responses close the door to story telling. As our research with mothers and children shows, what a three-year-old story teller needs is a participatory audience, an adult who can ask a genuinely interested and substantive question, one that leads the child to build the story.

Marilyn Nolt

Some of the time, what this requires is simply attentive listening, another somewhat scarce phenomenon in a busy day. Many of us now know that play is truly a child's work, and that most of their days should be spent at what is commonly called free play. But conversation is an equally important to the budding story teller. As wonderful as play doh, dress up, and blocks are, conversations are a powerful part of any curriculum and very alluring to a child. While circle time gives children a chance to share toys or news with one another, group meetings are not conducive to long conversations. These take place most often around the snack or lunch table, at a drawing corner, or snuggled up against some pillows (Engel 1996). These conversations in which stories are embedded are at least if not more likely to happen spontaneously as they are during a time earmarked, "Story telling".

Listening attentively to your student, patient, or

child's stories not only has a powerful effect on their experience of telling the story, it is an invaluable source of insight into your child's experience. One reason why it is so important to have plenty of adults working with children in group settings is so that there are enough conversational partners to go around. If you are responsible for 8-12 children by yourself its hard to have real conversations with all of them, each day.

A second related way to promote the development of story telling is to talk frequently about the past and the future. Children at least as young as 16 months love to hear about their own past and about plans for the future, whether it's what they will do later that day, or about a holiday coming at the end of the month. Long before children show a full understanding of the past and the future, or of time itself, they love to hear about their extended selves from those around them. In day care or therapeutic settings, having conversations with children about their lives is an essential means to building up a relationship that extends beyond the immediate context. Moreover, the more this kind of planning and reminiscing takes place, the more opportunities for them to develop an internal repertoire of stories. Children also love to hear about the lives of the adults around them. In order to develop a real relationship with a child in your care, you need to have genuine conversations. This means that you have to talk about yourself as well. Clearly we make choices about what to share and what not to share. But one-sided conversations are skimpy versions of the real thing and bar children from learning about the adults around them, and from experiencing genuine dialogue.

Finally, children need to hear and participate in a wide array of stories. As I have tried to show, young language learners have amazingly sensitive ears for style. They relish and absorb all kinds of stories, story telling formats, and genres, from allegories to poems. It is natural to choose stories to read aloud that fit a topic of interest. For instance teachers choose stories about separation at the beginning of the year, and stories about the harvest in the fall. But it is important to choose stories as much for their language, style, and sensibility as well. Children love and benefit from stories, poems, and songs that they don't fully understand, but that contain something (tone, rhythm, imagery, for instance) they can relate to. A good example of this is the wide appeal of T.S. Eliot's *Book of Practical Cats*. Too often stories written for children about popular topics lack any kind of narrative or linguistic power.

One of the most effective ways to show children that people live in differing communities is to share stories with them that come from those cultures. Thus, rather than hearing about a culture, they hear the culture through its narratives. It is important not only to introduce children to other communities through stories from those communities, it is also an effective way to validate the narrative styles and habits of the children one is working with. As I have tried to show, children internalize the story telling values of their community. It can be seriously limiting for a child to enter a setting where their way of telling or responding to stories is neither accepted or celebrated. Instead of correcting the way a child tells a story, or what they put into their story, listen, respond, and assume their style is a worthwhile one.

Stories need not only come in the form of books. Many communities have a flourishing tradition of oral stories. One of the most important lessons I have learned from my own research is that stories can form a tremendously rich strand of everyday spoken conversation. Here again there is room for all kinds of story telling. These differences can reflect personality, culture, and interest. The richer the repertoire of story telling styles a child is exposed to, the more possibilities for that child to develop his or her own powerful narrative voice, one that reflects both his community, his family, and his inner life.

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Shrinking Trolls and Expanding Minds:

How Very Young Children Learn To Understand and Use Symbols

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The early cognitive development of children is to a large extent the development of the ability to mentally transcend time and space, a feat made possible by the development of symbolic capacities. Symbolization is, indeed, the hallmark of human cognition; there is nothing that so clearly distinguishes us from other creatures as our creative and flexible use of symbols. Virtually anything can be a symbol, so long as some person intends that it be responded to not as itself, but in terms of what it represents. The particular symbols of a culture may include, among other things, writing systems, number systems, maps, and models. Mastering the symbols of their culture is a central developmental task for children.

Whatever their culture, all typically developing children begin learning language and gestures in the first year of life. In Western societies, older infants and toddlers start to learn informally about other kinds of symbolic media, such as pictures and television. Most preschool children are taught the alphabet and numbers, many begin to read, and some even start to do simple arithmetic. Many young children also encounter a variety of less common symbols, such as maps, models, musical notation, and computer icons.

Because of the universality and centrality of symbols to human culture, it is important to examine how and when children come to understand and use symbols as adults do. Adults are so experienced and skilled with symbols and symbolic reasoning that they generally "see through" symbols to their referents: They can judge the technical quality of a photograph or consider the cartographic characteristics of a map, but the photo automatically evokes thoughts of the depicted loved one, and the map primarily serves to provide information about the represented area. Moreover, adults, whose everyday experience includes a wealth of symbols and symbol systems, assume that many of the novel entities they encounter will have symbolic import. This is not the case with young children. My research on early symbolic development reveals that children only gradually appreciate that entities should be responded to as representations of something other than themselves—in other words, as symbols. These findings have important practical implications for parents, early care and education professionals, and anyone working directly with young children or designing their caregiving environments.

Symbolic development

My research addresses the issue of how very young children first gain insight into novel symbol-referent relations and how they begin to use symbols as a source of information and a basis for reasoning.

In our research, my colleagues and I present young children with a particular symbolic representation—most often a scale model, picture, or map—that provides information needed to solve a problem. Use of the symbol requires: 1) some awareness of the relation between symbol and referent; 2) mapping the corresponding elements from one to the other; and 3) drawing an inference about one based on the other. The majority of our research has involved scale models. Because young children rarely, if ever, encounter real models in which the symbol maps onto a specific referent, we can use scale models to examine how children first gain insight into and exploit a novel type of symbol-referent relation.

In our standard task, the model stands for a room (either a full-sized real room or a tentlike, portable room). The model is very realistic, and there is a high degree of physical similarity between the objects—items of furniture — within the model and the room. the model is in the same spatial orientation as the room, but it is located outside the room, so the child can see only

one space at a time. The model-room relation is explicitly and elaborately described and demonstrated for the three-year-old children. In the task, children watch as a miniature toy is hidden behind or under a miniature item of furniture in the model, and they are told that a larger version of the toy is hidden with the corresponding piece of furniture in the room. ("Watch! I'm hiding Little Snoopy here. I'm going to hide Big Snoopy in the same place in his big room.") If the children appreciate the relation between the two spaces, then their knowledge of the location of the miniature toy in the model can be used to figure out where to search for the larger toy in the room, and vice versa. (It does not matter whether subjects see the hiding event in the model or the room. For convenience, I refer to the situation in which the hiding event occurs in the model.)

In numerous studies, 36-month-old children have typically succeeded in this task (>75 percent errorless retrievals), but 30-month-olds have usually performed very poorly (<20 percent correct) (DeLoache, 1987, 1991; DeLoache, Kolstad & Anderson, 1991; Dow & Pick, 1992; Marzolf & DeLoache, 1994). Failure in the task is not due to memory or motivational factors: Virtually all children can retrieve the toy they actually observe being hidden in the model. Nevertheless, the younger children fail to relate their knowledge of the model to the room. These children understand that there is a toy hidden in the room, and they readily search for it. What they do not realize is that they have any way of knowing—other than by guessing—where it is.

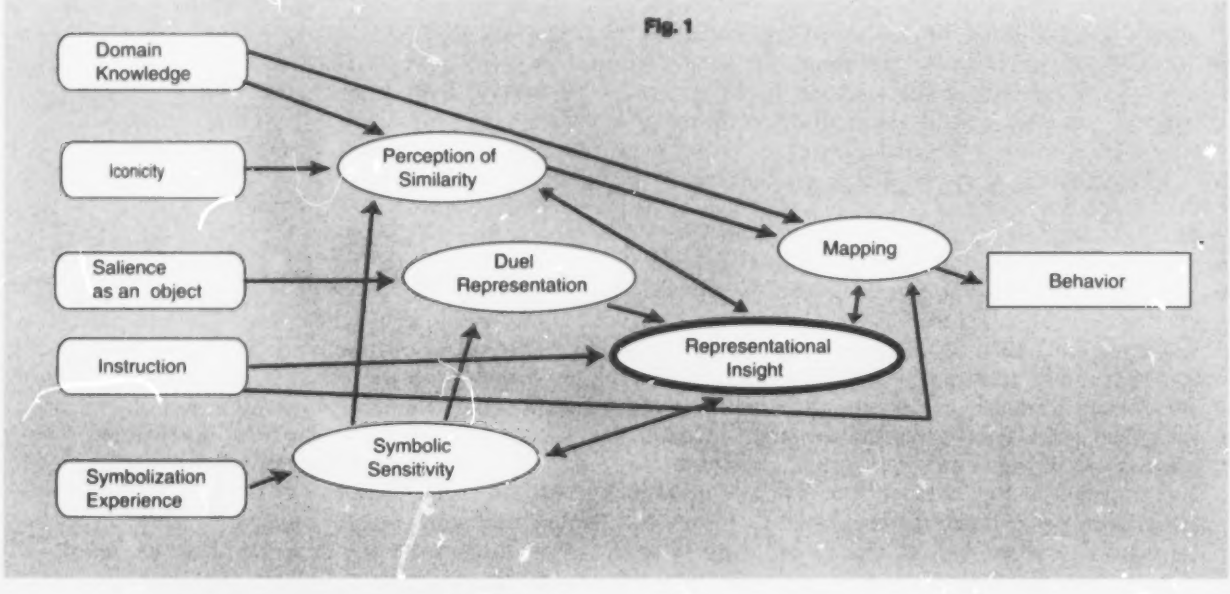
A model of symbol understanding and use

Research conducted with this and related tasks has led to the development of a conceptual model of young children's understanding and use of symbols (see Fig. 1 below.) (To avoid confusion, henceforth I use the term Model, with a capital M, to refer to the conceptual model.) The Model incorporates several factors we have discovered to be important in young children's symbol use (left side of Fig. 1), including characteristics of the symbol itself (salience), the symbol-referent relationship (iconicity), the symbol user (experience), and the social context (instruction). As is apparent from the figure, these factors interact in complex ways to determine performance.

The end point of the Model is the behavior of using a symbol as a source of information (right side of Fig. 1), which always requires mapping between symbol and referent. Numerals must be mapped onto the appropriate quantities; the individual elements on a road map must be mapped onto the corresponding roads and cities in the real world. In the model task, the individual objects--items of furniture—within the model must be mapped onto the corresponding objects in the room. The relation between the hidden toy and its hiding place must also be mapped from one space to the other.

The pivotal element in the model is representational insight—the basic realization of the existence of a relation between a symbol and its referent. This awareness includes both the fact that there is a relation between symbol and referent and some knowledge of how they are related. The nature or level of an individual's mental representation of the relation between a symbol and its referent can vary greatly. It could be conscious, explicit knowledge that the symbol stands for its referent. A touchstone example of the dawning of explicit insight is Helen Keller's dramatic and life-transforming realization of the point of her teacher's finger movements. Representational insight could also be some inexpressible, implicit sense of relatedness, such as a

Fig. 1



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Barbara Young

young child might have. My research has repeatedly shown that representational insight can be surprisingly difficult for young children to achieve, but that developmental progress can be very rapid.

It is important to note, in this context, that a person can encounter and even learn something about a symbol and not realize what it stands for. My younger brother had been obediently reciting the Pledge of Allegiance for some time when he one day asked, "What are witches' stands?" Preschool children can happily sing the alphabet song and learn to recognize letters without at all understanding the role of letters in reading and writing. Similarly, young children can readily reel off a correctly ordered list of number names without being able to count even a small array of objects. Anyone who attempts to teach young children or to assess their cognitive skills should not confuse knowing a set of symbols with understanding how those symbols relate to their referents.

For young children, iconicity (referring to the physical similarity between symbol and referent) plays an important role in symbol use. Many symbol-referent relations are purely arbitrary and conventional, with no physical resemblance at all—for example, numerals, letters, and musical notation. Other symbols are highly iconic: A color photograph, for example, closely resembles its referent. Except for size, the scale model used in my research looks very much like the room it represents. Iconicity generally facilitates symbol use: The more a symbol resembles its referent, the easier it is to perceive the similarity between the two. Perception of similarity facilitates both the achievement of representational insight and mapping. In the model task, we found similarity to be very important, both in terms of surface similarity of the individual objects within the two spaces and in terms of the overall resemblance between the model and the room. For example, 3-year-olds are highly successful if the furniture in the two spaces is highly similar, but they perform poorly if there is a low level of similarity. When object similarity is high and, in addition, model and room are similar in overall size, even two-and-one-half-year-olds succeed in the model task (DeLoache, Kolstad, & Anderson, 1991).

Note that the Model specifies two-way influences between representational insight and perception of similarity. A child who realizes that a symbol and referent are related will presumably search for similarity between the elements within them, thus leading to improved mapping. For example, in the model task, a child who realizes that the model and room are related will actively look for similarities between the individual items within the spaces.

The role of instruction

The social context of symbol use is very important. We expect direct instruction by other, more knowledgeable people to be necessary for children to master many symbols. Reading is an obvious example. Although there are fascinating examples of children who seem to have learned to read on their own, most children require direct, extensive instruction to learn to recognize letters and read words.

The importance of instruction about the nature and appropriate interpretation of symbols is not restricted to

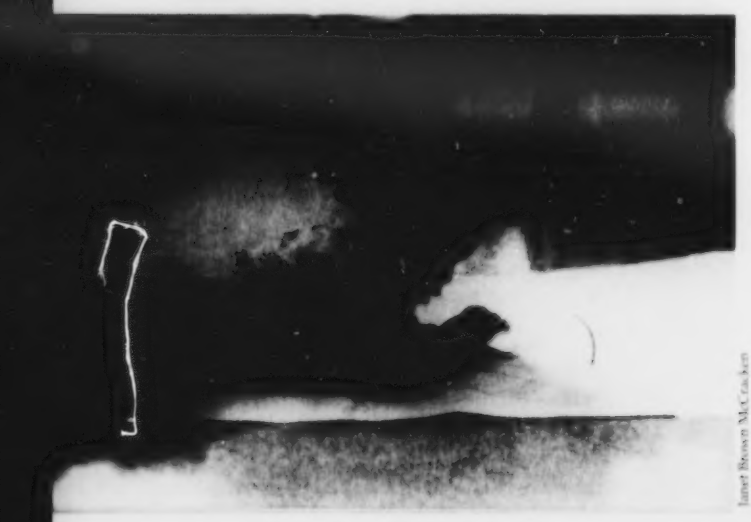
abstract, purely conventional symbols like letters and numbers. Even highly iconic symbols like realistic pictures are not necessarily interpreted correctly without social interaction and communication about their nature and use. Recent research in my laboratory (DeLoache, Pierroutsakos, Uttal, & Rosengren, 1995; Pierroutsakos, 1994) has established that 9-month-old infants are confused about the nature of two-dimensional stimuli. They often treat realistic color photographs of objects as if they were real objects. Specifically, 9-month-olds touch, rub, pat, and even try to pick up depicted objects. These fruitless efforts are not due to an inability to discriminate real objects from their pictures: Presented with a real object and a color photograph of that object, the infants always reach for the real object. However, perceiving that there is a difference between three- and two-dimensional objects is not the same as understanding the nature of that difference: These babies simply do not yet understand what pictures are. Or perhaps it would be more accurate to say that they do not yet understand what pictures are *not*.

By 20 months of age, such manual exploration of pictures is rare in the middle-class children we have observed. Presumably as a function of experience with pictures—especially picturebook interactions with parents, older siblings, and child care providers—these toddlers have learned two important lessons. First, they know that pictures share only some of the characteristics of their referents. A picture of a banana looks like and makes one think about bananas, but it cannot be picked up or eaten. Second, these American toddlers have learned the culturally appropriate use of pictures—we look at them, think about them, show them to someone else, and talk about them. Thus, before their second birthday, middle-class children understand that pictures are objects of contemplation and conversation, not action.

This research raises the possibility that some picturebooks might make the child's task a bit more difficult. There are many popular books that have three-dimensional features—from the famous old standard, *Pat the Bunny*, to books in the shape of trucks, books that fold out to make a dinosaur, or any number of variants. Charming as these books sometimes are, they invite young children to treat pictures as objects rather than as representations. Thus, instead of helping them figure out the important differences between objects and pictures, such books actually obscure those differences.

In the model task, also, direct instruction plays an important role. Experiments in which we have manipulated the instruction given to the children about the model-room relation show a significant effect on the likelihood that they will notice the relation between the two paces. The extent and nature of instruction that is needed (or useful) depends on the age of the child. With two-and-a-half-year-olds, not even extensive, explicit instructions are enough to lead them to apply their knowledge of the model to the room. Three-year-olds are very successful if they are given an extensive orientation, including a description of the two toys, a description of their rooms as being alike, and a demonstration and explanation of the correspondence between all the relevant objects in the two spaces. Furthermore, the experimenter explains that she always hides the two toys in the "same places" in their rooms. When less complete instructions are given, three-year-olds, and even three-and-a-half-year-olds perform very poorly (DeLoache, 1989).

How does instruction help inexperienced symbol users (i.e., very young children) achieve representational insight? We assume that our instructions contribute in various ways. For one thing, they direct the children's attention to the respects in which the two spaces are similar; for example, they emphasize the correspondences between individual objects, which children must detect to succeed, and they de-emphasize the size difference between the spaces. Furthermore, telling children that the spaces are alike may lead them to actively compare the model and room and hence to discover additional similarities that the experimenter does not mention (e.g., the spatial relation among the objects, or features of the spaces such as windows, bookshelves, pictures on the walls, doors, etc.). In addition, instructions convey the general structure of the task, including the crucial parallel between the hiding events in the two spaces.



Janet Brown McCracken

Dual representation (and shrinking trolls)

Another important factor is the salience of the physical properties of the symbol. All symbols of the sort under consideration have both a concrete and an abstract nature. A consequence is that understanding and using them requires what I have termed dual representation —simultaneously representing both the concrete and

the abstract nature of a symbol (DeLoache, 1987, 1991). To the extent that one's attention is drawn to the physical properties of a symbol, it will be more difficult to appreciate its symbolic status. As Langer (1942) said, a peach would be a poor symbol because "we are too much interested in peaches themselves."

To succeed in the model task, the child must mentally represent the model both as a real, concrete object (or set of objects) and, at the same time, as an abstract symbol for something other than itself. The high salience of the model and young children's keen interest in it prevent them from representing it both ways. They pay attention to the model itself, encoding and remembering the location of the hiding event in it, but that memory representation remains separate from their mental representation of the room. Hence, they fail to use their knowledge about the model to draw an inference about the room.

The dual representation hypothesis has received strong support from the confirmation of a series of counterintuitive but theoretically motivated predictions. First, I reasoned that because a picture is much less salient and interesting as an object than a model is, substituting a picture for the model should make our task easier (even though two-dimensional stimuli are generally less informative and effective than three-dimensional ones) (DeLoache, 1987, 1991). As predicted, two-and-a-half-year-old children succeeded when pictures, but not a model, were used to convey the location of a hidden toy.

Second, we attempted to decrease the physical salience of the model by placing it behind a window, thus preventing the children from touching it or interacting directly with it. We reasoned that denying children access to the model would decrease its salience as an object, hence making it easier for them to achieve dual representation. The predicted improvement in the performance of a group of two-and-a-half-year-olds occurred. In a third study in this series, we attempted instead to increase the salience of the model by letting children play with it for several minutes before testing them in the standard task. The idea was that playing with and manipulating the model would make it more salient as an object and hence would make dual representation more difficult to achieve. The predicted poor performance by a group of three-year-olds occurred (DeLoache & Burns, 1993).

We recently conducted an even more stringent test of dual representation by attempting to eliminate the need for it (DeLoache, Miller, & Rosengren, in press). In this study, we endeavored to convince a group of two-and-a-half-year-old children that a "shrinking machine" could shrink a troll doll and a room. Our reasoning was that if children believe the machine has shrunk the room (into the scale model of that room), then there is no representational relation between model and room. Instead, there is an identity relation: The model is the room. Hence, the task of retrieving the hidden toy is simply a memory problem. Therefore, we predicted that two-and-a-half-year-olds, who typically fail the standard model task, would succeed in the nonsymbolic shrinking-room task.

In the orientation, the child was introduced to "Terry the Troll" (a troll doll with vivid fuschia hair) and was shown "Terry's room" (a tent-like, portable room that had been used in many previous model studies). Then the shrinking machine (which looked suspiciously like an oscilloscope with flashing green lights) was introduced, and its remarkable powers were demonstrated. The troll was placed in front of the machine, which was "switched on," and the child and experimenter waited in the adjoining area, listening to computer-generated "sounds the shrinking machine makes when it's working." The child then returned to discover a miniature troll in place of the original one. The child was then shown that the machine could also make the troll "get big again." A similar demonstration showed the power of the machine to shrink and enlarge Terry's room. The sight of the model in place of the room was very dramatic.

The child then watched as the experimenter hid the larger doll somewhere in the portable room. After waiting while the machine shrank the room, the child was asked to find the hidden toy. The miniature troll was, of course, hidden in the model in the place corresponding to where the child had seen the larger troll being hidden in the room. Thus, just as in the model task, the child had to use his or her knowledge of where the toy was hidden in one space to know where to search in the other. However, in this task, the child thought the room and the model were the same thing. (Both the experimenters and the parents were convinced that all but one child firmly believed the shrinking-room scenario. Remember, most of these children also believed in Santa Claus.)

As predicted, performance was significantly better in this nonsymbolic task than in a control task involving the usual symbolic relation between the model and the room. This superior performance occurred even though the shrinking-room scenario was more complicated and the delay between the hiding event and the child's retrieval was much longer than in the standard model task. This study thus provides very strong support for the dual representation hypothesis.

(Yes, we always debriefed the children fully at the end of the session, showing them the two dolls and the room and model together and explaining that we were "just pretending." Most children appeared uninterested in our explanation. Several, after listening to it, responded, "Can we shrink him again?")

The development of symbolic sensitivity

A key element in our Model of children's understanding and use of symbols is the individual child's symbolization experience. This includes both the child's general

Barbara Young

experience with a variety of symbols and specific experience with any particular type of symbol. Such experiences lead to the development of symbolic sensitivity, a general expectation or readiness to look for and detect the presence of symbolic relations between entities. A child who has had the experience of responding to a given entity as a representation of something other than itself is readier to respond to other entities in an abstract rather than concrete mode (DeLoache & Marzolf, 1992). Given typical caregiving environments, children's symbolic experience, and hence their symbolic sensitivity, increases naturally with age.

A series of standard "transfer-of-training" studies has provided evidence for the role of symbolic sensitivity. Children who are first tested in a relatively easy task (i.e., one in which they detect the symbol-referent relation and perform well) subsequently perform better in a more difficult task (i.e., one which their age group normally fails). Thus two-and-a-half-year-olds who did well using a picture to guide their search for a hidden toy subsequently succeeded using a model as a source of information. Children of the same age also showed significant transfer from a relatively easy model task to the standard task. Three-year-old children who first participated in the task with high similarity between model and room were subsequently successful with low similarity between the two spaces, although 3-year-olds typically fail the latter task (Marzolf & DeLoache, 1994).

Although we have examined symbolic experience within our model task paradigm, the concept of symbolic sensitivity is presumably quite general. In our conceptual Model, symbolic sensitivity is the primary mechanism for developmental change. We would expect it to increase as a function of a child's experience with widely disparate symbols. Thus, the increased performance that we observe in our picture and model studies during the third year of life might result in part from the children's experience with picturebooks, television, pretend play, and other forms of symbolic experience.

One would thus expect that children with less experience with common early symbols like picturebooks might achieve success in our standard scale model task somewhat later than children with more of such experience. Data consistent with this expectation come from a comparison of a group of children who attended a local child care center serving primarily lower socioeconomic status (SES) families with the performance of children attending a predominantly middle-class center. The three-year-old children in the lower SES group were less successful (39 percent) in our high object-similarity model task than the middle-SES children (78 percent). By age three-and-one-half years, however, the children in the lower-SES sample performed well in the task (81 percent).

In another comparative study, a group of mostly mid-

dle-class Argentinean children performed less well in this task than our typical sample of middle-class Illinois youngsters. According to the teachers in the Argentinean center, these children received relatively little exposure to picturebooks and representational toys. There are, of course, myriad differences between the various groups in these studies, in addition to symbolic experience, so these results must be interpreted with great caution. Nevertheless, they are consistent with the hypothesis that greater experience with symbols in general should facilitate performance in the scale model task—and, more importantly, that as children become more sensitive to the possibility of symbolic relations, they become capable of detecting them with less support.

Implications and application

The Model of children's growing understanding and use of symbols that has been described here has a number of clear practical implications for parents, early care and education professionals, and others who work with very young children.

First, one cannot take for granted that young children will detect a symbolic relation, no matter how obvious it is to adults or even to older children. Only through experience do young children come to appreciate the abstract, representational relation that holds between a symbol and referent, regardless of how physically similar they may be. Thus, although three-dimensional educational materials ("manipulables") are often designed with the assumption that children will figure out the relation between various-sized blocks and number concepts, my research indicates that this assumption cannot be made blithely—and will not always be valid. Hence, the utility of any such educational aids cannot simply be taken for granted (see Uttal, Scudder, & DeLoache, in press). Similarly, anatomically explicit dolls are commonly used in investigations of suspected child abuse on the assumption that the self-doll relation will be obvious to young children and will help them provide more complete and accurate testimony. Recent research in my laboratory and others questions this assumption. There is increasing evidence that, as predicted by dual representation, very young children do not find it natural or easy to use a doll as a representation of themselves (DeLoache, 1995; DeLoache & Marzolf, 1995).

Second, parents, educators, and caregivers should guard against assuming that young children who have learned particular symbolic terms understand the significance of those symbols. I mentioned earlier that knowing one's ABC's does not necessarily imply understanding the role of letters on the printed page. Playing in a meaningful way with a doll does not guarantee that the child can readily use the doll as a representation of him- or herself.

Third, there is no more important developmental task than mastering the set of symbols important to one's culture. It is not possible to function fully and effectively in any society without understanding the symbolic media through which individuals in the society communicate. Early symbolic sensitivity develops only through interaction with skilled symbol users. Young children learn some symbol-referent relations simply as a consequence of everyday communication with other people—for example, learning about the nature of pictures and how they are used through picturebook interactions. Direct instruction and training are necessary for mastering other symbol-referent relations—for example, learning to read or do math. In all cases, however, the older individuals providing guidance to young children need to realize that symbol-referent relations that are transparent to them can be surprisingly opaque to those with limited symbolic experience. Although the adult easily "sees through" the symbol to its referent, the child may see only the symbol itself.

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Barbara Young

Children's Memory for Personal Experience:

Individual and Cultural Variations in Development

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Children's memory for their own experiences—events they take part in—has become of particular interest to both researchers and practitioners in recent years. There are many reasons for this interest, among them important practical issues involved in child abuse and children's testimony in court cases. From a different but related perspective researchers have pursued the intriguing question of why events of infancy and early childhood are closed off to later memory. As is well known, most people cannot recall events from their lives before the age of about 3 1/2 years or even later (sometimes as late as 8 or 10 years of age). Freud referred to this lack as infantile or childhood amnesia and attributed it to repression of early memories. However, contemporary developmental psychologists find this explanation unpersuasive.

For one reason, researchers have in recent years found strong evidence for retention of memory for ordinary events in infancy and toddlerhood over weeks and even months, and the question then becomes: what happens to these memories? If they are not repressed, as Freud claimed, are earlier memories different from later? If so in what way? What is it about memories formed in later childhood that enables individuals to retain them for many years and into adulthood?

To understand this problem it helps to think of different kinds of memory that may all be involved in remembering aspects of a personal experience. We can identify at least three such kinds:

1. The experienced event may fit a general schema or script for familiar activities. For example, a child may have a standard "going to bed script" based on past

experience, and each re-experience of this event is not then retained as a specific memory but only as a "general script." Parents and practitioners are usually quite familiar with strong expectations based on such scripts, leading to insistence by a child that the routine be done exactly the same way each time.

2. A new or novel event or a salient variation in a standard familiar event may be remembered as a specific episode that has personal meaning. Such experiences are those that typically enter into an adult's autobiographical memory, forming a kind of personal history and storehouse of anecdotes that one may tell others or oneself. These may be positive or negative, a source of joy, sadness, triumph, or embarrassment. Sometimes they appear trivial and meaningless yet still enter into the fabric of one's life and self-understanding.

3. Rather than a whole story, parts of the experience may be retained in semantic memory, that is, as general information or knowledge. For example, a song learned in pre-school may be retained for many years, but the occasion or even the context of learning it may not be held in memory. It has entered into general knowledge, based on personal experience, but no longer with a personal experience "tag" to identify its source. Much of our general knowledge or facts about the world we live in are of this kind—we know them, but we don't remember when or why we learned them.

Over the past 15 years researchers from many laboratories have provided substantial evidence that even very young children (at least by 2 years of age) have each of these three kinds of personal memory. Some of the most interesting examples have come from the study of a 2-year-old child's pre-sleep monologues. The child Emily was tape-recorded periodically from the age of 21 months to 36 months as she talked to herself before falling asleep after her parents left the room. Here are examples of each type taken from the resulting transcripts of her talk:.

Script (2 years):

I can't go down the basement with jamas on. I sleep with jamas. Okay sleep with jamas. In the night time my only put big girl pants on. But in the morning we put jamas on. But, and the morning gets up . . . of the room. But, afternoon my wake up and play. Play with Mommy, Daddy . . . (24 mo.)

Although this account is somewhat inaccurate, it reflects Emily's concern with how things go. Later in the third year her "scripts" became highly extended; one concerned with the day's routine contained over 50 separate propositions reporting events in their canonical order, with several repetitions of the same event sequence. It is notable that these were formulated in terms of what will happen tomorrow, that is, the script served as the basis for anticipation of familiar event sequences.

Specific Episode (at 32 months):

We bought a baby, cause, the well because, when she, well, we thought it was for Christmas, but when we went to the s-s-store we didn't have our jacket on, but I saw some dolly, and I yelled at my mother and said I want one of those dolly. So after we were finished with the store, we went over to the dolly and she bought me one. So I have one.

In this example, Emily was recounting to herself what apparently was a significant episode in her life (she had not rehearsed this recent episode with her parents or others).

Semantic Memory (28 months):

Emily is talking with her father about tomorrow's breakfast before he leaves her alone in the room for sleep:

E: I want yogurt.
F: And you want yogurt. I know and I think I'll have some raspberries for you tomorrow.
E: And I cereal!
F: Today you had strawberries, tomorrow I think you'll have raspberries.
E: Cereal! Cereal!
F: You'll have cereal? Okay. Cereal and yogurt? You want bananas in yogurt, or raspberries in your cereal?
E: Yeah.
F: Okay. That'll be good.
E: And strawberries in my cereal.

Here Emily demonstrates that she has extracted from the different experiences of breakfast a general knowledge category of breakfast foods such as yogurt, cereal, fruit, eggs. Her category of alternatives for breakfast was specific to that event, but independent of any specific occasion of that event.

These excerpts from a highly articulate little girl indicate that by two and a half years of age she had good command of all three of the kinds of memory derived from personal experience outlined above. But Emily, like most of us, did not retain memories later from this early period of her life. To understand why not, it is necessary to consider the value of each of these kinds of memory for the individual, and ways in which such values may change with development.

Both the first and third types of memory—scripts and categories of things—consist of general knowledge that has a function in the child's current understanding of her own world, the people, objects and events that have their places in it. This kind of memory is of obvious significance to the child's intelligent functioning in everyday life; it constitutes the substance of her mental models of the world she lives in, and supports her ability to act intelligently within it.

What about the second, memory for a specific episode? Although Emily talked about specific experiences in her crib monologues from the age of 24 months, these recounts tended to be about everyday routines and not about novel happenings (the example quoted above is one of those that did incorporate a significant departure from a familiar event, in this case buying a desired doll in a toy store). Moreover, Emily did not

Nancy P. Alexander

repeat recounts of specific events in more than one monologue, suggesting that she did not find them of importance to self knowledge or of particular interest in their own right. We speculate that these specific episodic recounts served the same function and had the same value for the child as did the scripts and general knowledge categories; that is, recounting the event served to represent it as part of her general understanding—or mental model—of the world. For example, in the case of the doll-buying episode, it may have revealed the possibility of persuading a parent to purchase a highly valued article, a bit of general knowledge based on, but not forever attached to, a specific episode.

What changes might we expect in the function and value of memories of personal experience after the early childhood period? Most adults and older children engage in sharing memories with others—family members, friends, and acquaintances—both for entertainment value and for the "lessons in living" they illustrate. Most adults (at least in Western societies) also report that they possess a lifelong history of significant episodes that define who they were and who they are in different epochs and contexts of their lives—an autobiographical memory system with personal significance. Thus we would expect that retention of specific episodic memories would come to be valued for these reasons. The question is how, when, and why does this change come about?

Role of conversations with adults

Sometime between 2 and 4 years of age parents typically begin to talk with their children about the events they have experienced together, in addition to accompanying their shared experiences with commentary about what is happening. A number of researchers have established that talking about an experience may have an important impact on how the child remembers that experience, and may dispose children to engage in reminiscing about experiences themselves. Talk about an experience may affect all of the types of memory outlined previously and may affect these memories in different ways, depending on what is talked about. An example from a 4-year-old boy of our acquaintance illustrates how such talk may affect memory for a novel event.

While swinging on a rope attached to a swing set at preschool, Adam fell and hurt his elbow. Adam talked to his father after the fall on the phone and later on the drive home. Later that evening he talked to his mother about it. At bedtime he complained of more pains and his father, fearing that Adam had sustained more serious injuries, took him to the hospital emergency room, where it was discovered that he had injured his collarbone. After treatment, Adam and his father went for ice cream and then returned home. The next day, when Adam went to the playground, he found that a bar had been placed where he had swung, to prevent other children from swinging the way he had. The extra bar, placed mid way up on the end

Nancy P. Alexander

where the two pipes form an inverted "V" as a brace for the cross beam that holds the swings, now forms the letter A. Adam and his parents now refer to the structure as the "Adam bars."

Adam and his parents talked about the event frequently in the days and weeks that followed, and in this process we can see how the shared memory was incorporated in different ways. His parents talked to him about the event in terms of the need to listen to the teacher, not to use playground equipment for purposes other than they were intended. Adam reports that he now knows that you need to hold on with two hands when swinging on a rope so you don't fall off. Thus, he gained general knowledge about the need to hold on with both hands when swinging. (This is not, however, the knowledge that parents and teacher attempted to convey; they emphasized the importance of using equipment in the way it is intended to be used. Often it appears that children may not take from talk the message adults intend.) Adam also reconfirmed his script knowledge about what happens when he's hurt: Daddy is available, looks after him. He also acquired an episodic memory of how "Adam bars" came to the playground, as well as the combined episodic and script memory of the emergency room scenario. Thus talking about the event serves more than one personal memory function. In general, research in this area suggests that talking about events establishes the importance of remembering and the internalization of a framework that will later allow the child to engage in remembering with less and less dependence on the cueing of adults.

Starting from a very early age children are introduced to and engaged in the discourse of memory of their own social group. For many families in the West, photographs are the center of such talk as they are shown to children while the adult carries out both sides of the conversation. The adult thus scaffolds (Bruner, 1983) the child's memory talk, being both the questioner and respondent in the discourse: "Who's that?" or "Do you remember last Thanksgiving when this was taken?" or "Who's in the picture?" (Engel, 1986). As they engage in conversations about events with children, adults introduce the social form of talking about memories as well as the importance of doing so. Such interaction emphasizes the social value placed on talking about events as well as how such talk is conducted.

The effects of scaffolding in parent talk about the past have been studied by a number of researchers. In one such study, McCabe and Peterson (1991) traced the influence of parental framing as it developed in mother-child dyads for over a year. They found that parental questions during the first two interviews, at delayed intervals, provided young children with a skeletal framework of information needed for constructing a narrative report. At the third visit, when the experimenter interviewed the children, the children whose

parents had been more persistent in questioning and had asked topic-extension questions, provided longer narratives than the children whose parents were less persistent and asked fewer elaborative-type questions.

Children seem to develop particular ways of structuring memories based on the conversational style that the adults around them encourage. The questions adults ask direct children as to what is important to relate in a memory narrative. If the particular questions are not asked, the relevant pieces of information are not necessarily provided by the children. Thus, much of the information provided by children depends on the interviewing skills of the adults speaking to them. Moreover, if an adult asks either too many or too few questions, he or she may be seen as either too inquisitive and unaccepting or uninterested. Either of these extremes may discourage narration (McCabe and Peterson, 1991).

Mothers differ in the style of interaction they engage in with their children around the topic of events, whether as the event is in process, after it occurs, or in looking at picture books (Nelson, 1994; Tessler and Nelson, 1994). In two studies, Minda Tessler identified two distinct styles of parental talk in ongoing discourse as an event was taking place.: The **narrative style** is dynamic, emphasizing temporal and causal sequences of actions, motivations and feelings, movement toward a goal or endpoint. The **paradigmatic style** is more static and descriptive. focusing on identification of features and parts with less emphasis on the whole event. Similar styles have been identified in previous studies of mother-child past talk (Engel, 1986; Fivush & Hamond, 1990).

Narratives, like stories, usually have a distinctive beginning, a sequence of actions that lead to a high point that provides the sense or the drama, an evaluation (e.g. "That was fun, wasn't it?") and an ending. This structure provides coherence in the telling and also in the remembering. An example from Engel's dissertation data illustrates the way in which a parent can turn a memory fragment from even a very young child into a narrative-like story.

In this excerpt from her transcript the mother (M) and child (C) have been talking about memories based on family pictures. The 2-year-old introduces a new topic:

C: Mommy, the Chrysler building
M: The Chrysler building?
C: The Chrysler building?
M: Yeah, who works in the Chrysler building?
C: Daddy
M: Do you ever go there?
C: Yes, I see the Chrysler building\ picture of the Chrysler building
M: I don't know if we have a picture of the Chrysler building. Do we?
C: We went to . . . my Daddy went to work
M: Remember when we went to visit daddy? Went in the elevator, way way up in the building so we could look down from the big window?
C: big window
M: mmhm
C: ( )
When . . . we did go on the big building
M: mmhm, the big building. Was that fun? Would you like to do it again? Sometime.
C: I want to go on the big building.
(Unpublished data from Engel, 1986, used with permission.)

Here the mother picks up the child's topic (the Chrysler Building) and appropriately locates the experience that the child is focused on, a visit to Daddy. She supplies the action, the high point (looking down from the big window), and the evaluation (was that fun?) As the child follows along, affirming the mother's construction. In this way the fragment is jointly reconstructed into a coherent whole that may contribute to its further retention and accessibility.

Paradigmatic structures invoked by parents in memory talk may provide a categorical framework that also has a certain coherence. For example, many mothers looking at pictures of urban scenes with their 4-year-olds in Telier's study (see below) encouraged the child to name all of the fruits and vegetables displayed in a food store. This may encourage the child to form groups of items as categories that can form the basis of hierarchical taxonomies, a cognitive skill that clearly has value for later school learning. However, our research tends to indicate that for young children (and even for adults) the narrative format is naturally more memorable.

Tessler and Nelson studied ongoing commentary by

Barbara Young

mother and child during two events, visiting a museum and taking pictures on a neighborhood walk. We found that mothers were consistent across contexts—looking at books, commenting on ongoing experiences, and talking about the event experienced. Moreover, style of parental talk influenced the child's memory for the experience in two ways—children remembered more of the experience spontaneously, and they remembered more in the style that mothers used. When researchers attempted to elicit memories from the children in the opposite style to that of the mother, there was no contrasting effect; that is, children of narrative mothers recalled more in the style of their mothers regardless of the type of discourse used by the interviewer, and similarly for children of paradigmatic style mothers.

A striking result of these studies is that children recalled things they had seen in the museum or on the walk only if they had talked about the objects at the time. In the museum study if only one member of the mother-child dyad had discussed the object at the museum, this object was not recalled later with an interviewer. We concluded that, based on these results, "the child's verbalized memory for an experience is strongly influenced in form and content by the way in which the event is talked about during the ongoing experience, as well as after the experience" (Tessler & Nelson, 1994 p. 319).

Taken together, these studies indicate that over time and experience with co-reconstructing experiences with adults, children tend to adopt the styles and values of the adult model, formulating their own recall in ways that reflect the model, and focusing on aspects that the adult model typically emphasizes. This suggests that some children may learn to be good "narrativisers" or story-tellers, while other children may learn to analyze events into their component parts, and perhaps become good "categorizers."

Still, the results of many different studies suggest that the effects of adult modeling are not the result of simple imitation but are products of the active efforts of children to reconstruct for themselves the events of their lives. For example, studies of repeated conversations about a particular event have found that information provided by mothers during one recall session does not affect a later recall session (Fivush, 1994). In other words, the child does not incorporate the new information added by the mother during one conversation to the narrative told to the experimenter during a later conversation. Children report a greater number of units of information over recall sessions, but they do not necessarily report the same units across sessions. Fivush and Hamond (1990) speculate that this may be a result of the extensive cueing younger children depend on when reporting their memories. If the cueing is inconsistent across sessions, it may elicit different pieces of information at the different times. Older children and adults, however, are usually more consistent than younger children because they have internalized a narrative structure and they do not need to rely upon another person's cues or framing for recall of an experience.

Retaining memories: Effects of reinstatement

Overall these recent studies have shown that children learn to talk about their experiences in distinct ways. They also indicate that forming a **narrative** of the experience aids retention of the personal memory, and that parents who use a narrative style of discourse about past events tend to have children with more extensive personal memories. But does the parental talk actually affect the memory? Does it cause the memory of the event to be retained? If so, how does it have these effects? We are now studying the impact of talk on the retention of specific memories, under the assumption that talk has the effect of reinstating the child's experience of the event, in a mentally vicarious fashion. That is, we believe that talk about the event reactivates the child's memory, and that this private vicarious re-experience of the event influences its retention over a longer period of time than would otherwise be the case. Thus we believe that memory for events is socially mediated through talk about the shared experience, but the long term effect is on personal memory about the self.

In a first study investigating the effects of reinstatement, we (Walkenfeld and Nelson, 1995) found that children who were guided in talk about a shared experience with an experimenter after a two-week delay were better able to recount details of the event at a later time than children who did not discuss the event. These effects are now under further study, and preliminary findings suggest that amount of information recalled is related to the familiarity and skill of individual adult interviewers, whether or not the child had shared the experience with the interviewer. This finding is consistent with that of McCabe and Peterson on maternal talk effects, as reported earlier.

Our current research also replicates the earlier findings that talk about an event on one occasion has a positive effect on the child's memory for details at a later time, although as Fivush and her colleagues have shown, different interviewers may elicit different details. This inconsistency in reporting by children suggests that the effect of the talk on memory is global— it does not invoke rehearsal of particular details, but rather reactivates and thus reinstates the memory of the experience itself.

Although verbal recall is generally a facilitator of memory, some kinds of verbal intervention may lead to memory distortions. For example, someone unsure about the details of a given event is more likely to accept another version of the story than someone who accurately recalls the details of that event. This is apparent in the resistance that children sometimes show to parents' attempts at correcting a child's account. Researchers studying the effects of misleading post-event informa-

Barbara Young

tion, for example false suggestions about what occurred, have concluded that young children's memory is easily distorted when faced with misleading questions.

However, the evidence on suggestibility of children's memory is not entirely consistent and depends on a number of factors, such as those discussed here, that enter into how a child constructs and reconstructs the memory of the experience. Verbal suggestions can be very powerful if they do not contradict the child's own memory, but may have no effect if they do. In our studies contradictory suggestions have been put forth in the reinstatement sessions, and we have found little or no effect on children's subsequent recounts.

The positive effects of talk about the past with young children are important in conveying the structure and value of narratives to be shared with others and to treasure for one's own self history, the ultimate source of self knowledge and self concept. The possible negative effects of distorting a true memory through false suggestions certainly exist, and may be more powerful for young children just beginning to participate in this kind of discourse. However, the possibility of memory distortion is a minor part of the story of early memory development.

Cultural variations

As the previous discussion has indicated, individual variations in parental style—narrative or paradigmatic—influence children's style and their retention of memories. These style differences may reflect different social or cultural values—an emphasis on individualism or on factual knowledge. The different styles that we find among mothers in conversations with their young children about experiences they have shared in the past, or about events that they are taking part in or anticipate for the future are reflected in the number and coherence of memories that the children report later, as previously discussed. In view of the fact that memory for specific personal episodes—autobiographical memory—is only one of several memory functions, we may ask how important this function is for an individual child's development, and what effect variations in it may have on individual or cultural variations in cognitive or personality development. We know from recent research that memory is not a unitary capacity, and that different memory skills do not always cohere together (Weiner, 1991).

An important perspective on this issue can be obtained from the study of personal memory in different cultural contexts. As the research cited here has documented, organizing a memory as a narrative with a beginning, a high point, an evaluation, and an ending, provides the coherence that makes the experience accessible as a whole and therefore leads to its longer retention. In these memory stories the child is usually presented as the protagonist, the one who undertakes goal-oriented action and for whom the outcome is evaluated

Marilyn Nolt

positively or negatively ("You felt sad, didn't you?"). This kind of "narrativising" appears to be learned from parents and other adults who at first provide the story framework and the evaluative commentary.

Mullen (1994, 1995) investigated the possibility that children from a culture that focused less on the child as independent actor and more on persons within activities and goals of groups as wholes might experience less memory talk organized as child-focused stories, and therefore have fewer and later early childhood memories. In her first studies, she compared the age of first memories for groups of university students from two contrasting cultural backgrounds: European-American and Asian (Korean, Chinese, and Japanese). Social psychologists have theorized that the latter groups share a "group-oriented" rather than an "independent-agent-oriented" self system, suggesting that the personal value of memories would be late to develop and would be less salient for students from these cultural backgrounds. This hypothesis was supported in her studies, which consistently showed significantly later early memories for the Asian groups than for the Euro-American groups. Subsequently, Mullen and Yi (1995) compared the amount and kind of talk about the past between Korean mothers and their pre-school children (in Korea) and US mothers and children of the same age. She found, as expected, that there was less talk about the past and it was less focused on the child's activities and feelings about the experience among the Korean sample.

These studies, although very important in originating the investigation of the relation between cultural practices and early autobiographical memory, are only a beginning in the effort to connect this kind of personal memory with other aspects of cognitive and personality development. It is intriguing that what is found on the social-interactive familial practices that are typical of a general cultural "style" may have pervasive effects on the self histories and self understandings of the individuals who grow up in those cultures. But at the same time, it is important to bear in mind that in our own multi-cultural individually-oriented social environments families may display quite different orientations along the same dimensions, as the studies of Tessler, Fivush, and others have shown.

The question then remains as to whether, aside from the possible effects on a child's early self-understanding, there are other discernible consequences of engaging in this kind of memory talk, and of forming coherent narrative memories of personal experience. Although the research on these issues is still in progress and conclusions cannot be definitive at this time, we can make some educated guesses on the basis of what has been learned thus far. To do this we return to the distinction outlined at the beginning between semantic memory organized around categories of things and episodic memory organized around experienced events, and we relate these to the distinction, made by Bruner (1986) and used in Tessler's analyses of mother-child talk, between paradigmatic and narrative thinking and discourse styles.

Conclusion

The type of personal memory that we have focused on here has two faces, one more or less automatic - events are remembered because something in them is salient, relevant to self, novel, emotionally arousing, or otherwise of interest. No special effort is needed to remember in this case. The memory might give rise to a script if the event is repeated, or features of it might be related to other bits of general knowledge. But the other face of memory requires reflection to extract specific meaning from the experience, to relate to self knowledge, to reconstruct as a meaningful whole. It is this aspect that is facilitated by talk with others, and specifically by narrative type talk with adults who have shared the experience, or who can co-construct a non-shared experience with the child.

In this process the child is confronted with important aspects of understanding self and the social world. The past is brought into present consciousness, such that the child can newly realize the continuity of past-present-future time. This is an achievement that is beyond the grasp of the infant or even the young preschooler (Nelson, 1996). The differing perspective of others on the same event confronts the child with the fact that there is more than one version of reality and thus that there is more than one possible representation of the same experience. The reconstruction of the experience by the adult

provides the child with reflections on the self, evaluations of actions and emotions, self-descriptions and traits. Such evaluations may have very powerful effects on the developing self-image. At the same time, the adult's reconstruction connects the component parts of the experience into a temporal and causal sequence that might have not been apparent to the young child. Although our script research (Nelson, 1986) has shown that pre-schoolers are very good at sequencing repeated events, they may need help in reconstructing the sequence of a complex novel event. These effects are not easily differentiated into cognitive effects, social effects, or emotional effects. Rather, all are potentially present in the child's participation in these memory discourses.

This is not to say that children who engage in less narrative talk about the past will not develop a sense of past-present-future, or of causally related actions, or of a self-image; as with most complex developments there are many sources of these kinds of knowledge structures. But as emphasized previously, narrativized memory talk appears to be an especially rich source of these important developmental achievements. Moreover, practice with personal narratives provides a base from which the child can move on to comprehend fantasy narratives, myths, history, drama—even television cartoons. What research has uncovered is the value of one-on-one talk of small child with adult in a scaffolding or co-constructing paradigm. As we have noted, children seem to need a great deal of support at first to tell their memory stories to a sympathetic adult. Telling one's story to a group or telling a made-up story are both more advanced competencies not usually achieved by pre-schoolers.

What might children gain from paradigmatic type talk—that is, focus on analyzing experience into its parts, including descriptions of objects, categories of things, rules, and roles? This kind of memory also has two faces, an automatic aspect that registers features of the world, and a reflective aspect that, like memory narratives, is facilitated through talk with adults. Indeed, parents who emphasize paradigmatic talk usually believe that they are engaging in cognitive discourse of a particularly valuable kind. Much remembering in school calls on paradigmatic structures—lists, categories, rules that must be consciously committed to memory. Certainly children who participate in much talk focused on this kind of information are also gaining important experience in how to remember certain kinds of things. We do not need to denigrate one kind of experience or one style of interaction to place value on the other.

All cultures rely on narratives to construct the social cultural world through story, myth and history. Even those that put less emphasis on the individual side of the shared narratives and more on the communal side use the form to enculturate children in the ways of the group. In this country at this time in history, the cultural narratives emphasize the individual, and therefore most children in this society today gain understanding of their social world as they gain understanding of themselves while reflecting on their own past through others' eyes. As Bruner (1986) emphasized, we have long recognized the importance of objective paradigmatic memory. What now needs to be given equal recognition by both teachers and parents is the importance and significance for the young child of narratives of personal memory.

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Pain and Creativity:
The Complex Interplay

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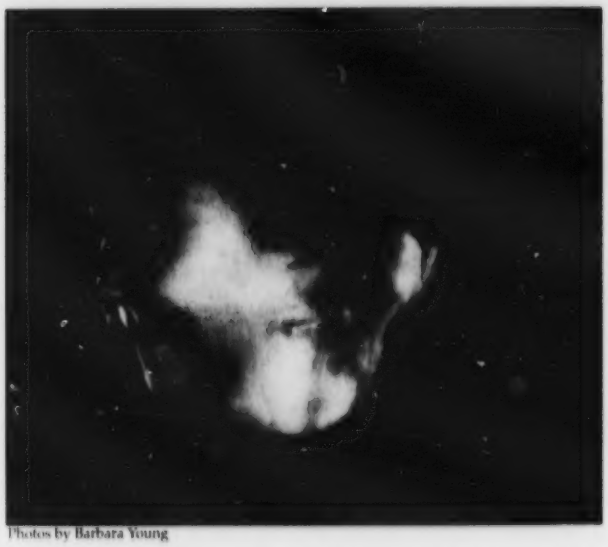

Photos by Barbara Young

Art has to do with woundings, of course, and the artist's pain will reach back like a taut fishing line into the pool of childhood . . . But the art is not a compensation for pain, not a rationalization, an alternative. Not a sublimation . . . the pain just opened the artist up, made her a channel for [grief]. What it was, originally, is no one else's business, this little pain that made the way open, the great generosity that refused to close it —Lionel Bassey, 1994, p. 461.

Creating something—whether it be a child engrossed in making mud pies, a mother stealing the time to bake a fresh coconut cake, or an artist lost in the construction of a painting—creative "doing" is joyful and brings in its wake a sense of profound satisfaction. Yet, increasingly, both in academic and artistic circles, one hears pain and creativity spoken of almost in the same breath. Observations from my work as psychoanalyst, photographer and writer have led me to accept that suffering does play a crucial role in creativity even in early childhood. But how, precisely, is pain connected to this vital, joyful process?

According to British pediatrician/psychoanalyst Donald Winnicott, the early pains of "tolerable frustration" in an infant's life stimulate his mind to find solutions to the problems at hand. Extreme indulgence eliminates the incentive for mental activity and severe deprivation stunts the growing shoots of curiosity and exploration. As a child matures, he must find ways of coping with the various pains which he encounters. These very coping mechanisms are the child's unique creations. He uses them throughout his life. If the child has an artistic gift, the need to deal with pain may nudge it into flowering. That child is indeed fortunate. But all of us must find creative ways of living and renewing ourselves during a lifetime of hard work and inevitable anxiety, if we are to remain vitally alive.

Let me clarify what I am piecing together about the interrelationship of suffering and creativity. Tolerable pain in infancy stimulates coping and creative mastery. More profound tragedy in childhood can be borne by a child whose foundation stones are solid, for he will survive and surmount the trials he faces by making use of his already developed coping mechanisms, even though his life will be forever marked by the early trauma. The adult who has creative skills is in a fortunate position when he is called upon to survive and surmount serious loss or misfortune, for his art will assist him in the process of working through his grief. We all can profit by making time for our private dreams and satisfactions. As Rabbi Hillel said "If I am not for myself, who will be for me? If I am for myself alone, what am I?"

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Inherited talent and stressful childhoods are only two of a number of essential ingredients that go into the making of a creator. Howard Gardner (1993) has written an "anatomy of creativity" entitled *Creating Minds*, in which he examines the lives of Freud, Einstein, Picasso, Stravinsky, T.S. Eliot, Martha Graham, and Gandhi. He sees each of these creators as possessing a different kind of intelligence, each having made a significant unique breakthrough in his or her field. Let me go into his thinking in some detail, for Gardner's ingredients for

the fulfillment of a genius seem equally applicable to the development and flowering of us more ordinary mortals.

In analyzing the lives of these creators, Gardner concentrates on various phases of their childhood and young adulthood, defining the circumstances they had in common which played an essential role in the unfolding of the future creator. The gift of genius is not enough. The seeds must fall on fertile soil. The quality of their early years was crucial. Each home was reasonably supportive "but . . . unconditional intimacy and warmth may have been in short supply, except perhaps in the care of a nanny" (p. 367). So these youngsters suffered a reasonable amount of frustration and pain which they were challenged to overcome; yet they managed to retain the spark of curiosity.

In the case of each creator studied by Gardner, at

least one parent supported the child's creative interest, and often another person, aside from the parents, served as a role model and played a vital part in encouraging a more adventurous stance toward life. Gardner writes, "If children, in early life, have the opportunity to discover much about their world and to do so in a comfortable, exploring way, they will accumulate invaluable 'capital of creativity' on which they can draw later in life"(p. 31). Adolescence was difficult for these "different" children, though each of them had one close friend who understood his dreams and aspirations. Teachers played a crucial role in substantiating the young creator's drive toward his goal. Most of our creators broke away from their families and moved to an artistic center where they could be with young people like themselves. As they entered uncharted territory in their fields, there was one special friend (like Fliess for Freud) with whom they tried out their ideas; an empathic person who assisted in the birth of the creation. Picasso and Braque worked side by side for six years. Fed and supported by this communion, Picasso then withdrew into himself for a period of months; alone, in privacy and isolation, he produced the painting which is considered the beginning of modern art: Les Demoiselles d'Avignon. Gardner likens the creators' need for support and confirmation at the time of their greatest breakthroughs to the needs infants have for caretakers who, shortly after birth, assist them in making initial sense of a new world.

Gardner's creators lived on the edge, on the margin of their communities; they managed to exploit this marginality in the service of their life's mission. If the cir-

cumstances of their early lives had not been "demographically marginal", when necessary, they had distanced themselves. Gardner writes, "Perhaps this is another way of recognizing that highly creative individuals belong in part to the whole world, and in part to themselves alone . . ."(p. 260).

In their lives as adults, there was torment as well as joy. (Often the creators inflicted suffering. They were unkind, cruel, even sadistic toward those closest to them.) Pain served as a goad to their creativity, or, as Lionel Basney, puts it, the pain "made the way open." Their own tribulations and their awareness of the suffering in the world around them fueled the power to be found in Picasso's paintings, Martha Graham's dance, Eliot's writing, Stravinsky's music.

• • •

Let us consider now the beginnings of several children who were fortunate in having responsive parents, in order to witness the birth of creativity and the birth of the self (which I consider one and the same). The look of awe on the faces of Tyler's parents, the loving care they are administering to their newborn, have already set into motion his "second" birth. At seventeen days, he

responds to his mother's voice and expressive face with a smile, a kick of the leg, and an outthrust arm.

If the pains of hunger, discomfort, and frustration in

the healthy newborn are relieved reliably and without much delay, the infant soon develops trust and the knowledge that his cry will bring action. When he wakes in the morning—sustained by this assurance—he can afford to wait while he engages with the new world surrounding him. Babies can be seen watching their hands as they turn in the light, gazing at the dust motes dancing in the sun beam, rapturously stroking the texture of the blanket. It is extraordinary how soon a child begins to make use of an inherited talent as a means of entertaining and soothing herself. Harriet—born into a home surrounded by music—lay in her buggy while the family visited grandmother. She was overheard humming to herself a little song that was actually in tune.

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A child is fortunate indeed when her early months are rich with attentive parents, good health, an optimally stimulating environment and her own inherent gifts. My little neighbor Cai had an artist mother who hung Packets and Pockets over the crib. She was amazed to find Cai staring at the designs, and equally surprised to observe her loss of interest in a few days. Could a baby so young actually be bored? When the designs were replaced, Cai resumed her watching. When she was six and one-half weeks old, we carried her to the sun porch for photographs, for it was storming outside. She turned from us, fascinated by the branches of the elm tree twisting and swaying, the rain ferociously pelting the window panes. Cai threw out her hand in delight. I did not exist. Mother did not exist, albeit she was essential both in the firm holding of the baby and the shared excitement she felt in her child's discovery. Already Cai was beginning to experience a world of her own, a world separate from the one she shared with her mother.

Could we say that even at this early age we have a glimpse of the rudiments of the two ways of loving: our relationship with others, and our relationship with ourselves? Recalling Gardner's comment that creative individuals belong in part to the whole world, and in part to themselves alone, I would say, so do we all. We all need this balance in our lives: our love for others, and our love for ourselves. Out of the intermingling of these two loves comes the child's ability to make the most of life. The ability to cope with the various painful exigencies she will encounter will come from a blending of these two.

There are many bumps in the road as a child moves toward the final goal of becoming a separate person from her mother. When Cai was eight months old, I received a frantic call from her mother. Could she come down and talk with me? As I ate breakfast before my first patient, she poured out her panic. She had waked with a nightmare that she slapped Cai in the face. Two days before she had gone to the grocery store, leaving Cai, as usual, with the baby sitter. Cai cried inconsolably the whole hour she was gone. That night she sat in her crib bent over like a little old woman, silent, depressed, unable to sleep. The next night it was the mother who hardly slept. What had she done to her child?

With dawning realization, she asked, "Did I really slap Cai in the face?" I said, "Well, I guess in a way you did." Cai was going into the phase of "stranger anxiety." The baby sitter, whom she saw only occasionally, had become a strange frightening face and mother was not there for reassurance. That hour had been endless; Cai's agony was followed by withdrawal from the unbearable pain. Thereafter, when her mother had to leave, she carefully explained what she was doing and how long she would be gone. Amazingly enough, the child took in the message that she would be back soon by the mother's tone of voice. Cai's mother and a friend began to take turns caring for each other's daughters, expanding the mothering circle for Cai and Sarah and insuring acceptable mothering in case of an emergency (which

actually did occur to Sarah and cushioned the loss when her mother was hospitalized for an extended illness.)

In the days that followed, Cai recovered her equilibrium, making use of her well-established coping mechanisms. At ten months, she is entertaining a visiting young cousin with a joke.

The family moved away. On occasional visits, I was able to observe Cai's creativity emerge, and to watch her

use her increasing skills not only for great pleasure but in order to cope with the inevitable frustrations and disappointments she encountered. As Daddy and Mommy kissed good-bye, this tiny little girl pushed herself against them to separate them. Helpless in her endeavor —in pain at Daddy's leaving and at their closeness— she proceeded to become strong and powerful. Jumping on her tricycle, madly, expertly, she rode around in circles. Then, puffing out her chest, she ran up and down the driveway showing off. On my following visit, Cai was dealing with the feelings of dislocation and "being replaced" by the birth of her sister. She was pensive, serious, as she stared out the window. As Cai grew, she had more than her share of serious problems to deal with. But her secure beginnings, which included the freedom to explore and to belong to herself, stood her in

good stead. And she was fortunate to have a musical gift to supplement her other coping skills; her piano playing.

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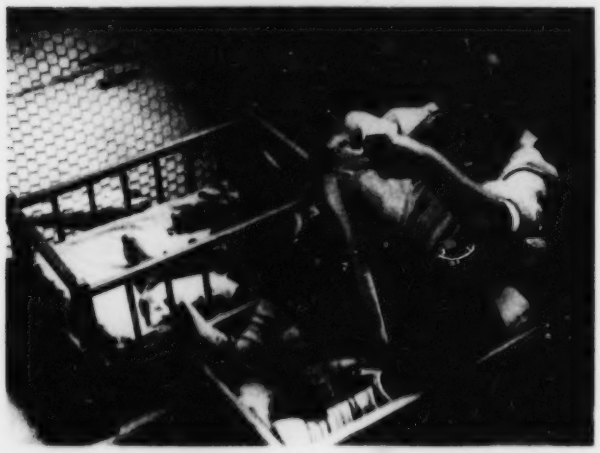
The child gains experience in play. Play is a big part of his life. External as well as internal experiences can be rich for the

adult, but for the child the riches are to be found chiefly in play and fantasy . . . Play is the continuous evidence of creativity, which means aliveness. — D.W. Winnicott, 1964, p. 144.



My friend Donna has a musician daughter. When Ashleigh was two and one-half months old, the two of them were driving in the car. Donna noticed that Ashleigh had become intrigued with her hands; holding one, then the other, putting her fingers into her mouth. Donna realized with a start that her baby was discovering her hands for the first time. Fascinated, she pulled over to the side of the road to watch. No doubt her mother's full attention on this new achievement was not lost on the baby. The infant's natural acceptance of her inherent worth was enhanced. When Ashleigh was in grade school, musicians came to play. She announced at supper: "I want to play the bass!" The father, visions of transporting a bass viol around the city, said, "Why not a violin?"—"That sounds too sad."—"Why not a cello?"—"I don't want that big thing between my legs. And besides—"(deepening her voice) "a bass sounds so low." One day she and her mother were attending a children's orchestra concert. Ashleigh leaned over and whispered, "I know why children play the bass. There are so many violins, the mothers can't hear their children. But when they play the bass, the mothers can." Ashleigh got her wish: a half-sized bass viol and lessons at the Peabody Preparatory School. At thirteen, she is going into adolescence with the sublimated excitement all parents wish for their children to ease them safely through this most difficult period of life.

• • •

Little children are ingenious in creating ways to see that their needs are met even in difficult circumstances. One of my patients eventually remembered—from the time when she was very young—that when she screamed to be taken up from her crib, her mother would escape from the apartment to a neighbor down the hall. Pushed by the desperateness of her pain, the tiny child practiced modulating her voice and learned to call "Mother" in a voice free from urgency and reassuring in its invitation. To this, her mother would respond.

Recently I encountered a remarkable little girl who had regressed to a belief in omnipotence in a trying circumstance. She was tagging along at the edge of a group of six-year-olds. Reaching out to her in her discomfort, I asked, "How old are you?" She squared her shoulders and declared, "I'm three because I choose to be!" Later I learned from the mother that this recent being-left-out episode was only the tail-end of a very painful year. A beloved grandmother had died, and the father had lost his job. Powerless in the face of both loss and prolonged family anxiety, she had resorted to omnipotent fantasies.

When a child who is fortunate to have had a good beginning encounters some terrible disaster at an early age, we may witness extraordinary creative coping skills at work. To me it is remarkable what a child can do who has had even a year or eighteen months of good-enough mothering. In the examples which follow, it is hard to know why the outcome to early tragedy was so different. Linda's psychological scars are devastating and permanent. Adebanke carries, under the surface, less handicapping scars, but her capacity to write poetry when she needs to deal with feelings no doubt reflects the creative resilience she has made use of all her life.

Linda, age one, had suffered a catastrophe. Two months before the picture on page 31 was taken, her house had burned down and she had witnessed her brother, a living torch, frantically running in his futile attempt to escape. At the time of the disaster—when Linda most needed her mother by her side—the mother had had to go to a hospital far from the family home with the two sons who were burned, leaving the infant with relatives. Linda never fully recovered. She did not talk when she went to school. She retained the haunted look in her eyes from infancy. Recently, I had heartening news. While in college she had seen a counselor. After she graduates she is planning to work with children.

Her mother says, "When she is home, she is so loving with me." What coping skills Linda had in addition to a remarkable capacity to endure I do not know. But she has dealt with the scars of her trauma as well as she possibly could, for she has had a loving mother who stood by her through thick and thin.

• • •

Adebanke, a little Nigerian girl, suffered a similar tragedy at eleven months of age. Her mother died and the father, who had done most of the caring for the baby, went off to England for six months, leaving her and her year old brother with an uncle's family who were strangers to the children. When the father returned; as was his custom, he bound the baby to his back as he went about the household chores. The child had inherited the gift to write poetry from her father. When in college, at age 18, her first book was published. *I Cry 4 U* is dedicated to her mother, whose presence had been kept alive by her brother's memories and her own imagination. She puts into words what all traumatized children must feel, deep down inside, but most cannot express. By making use of the simple displacements of "4" for "for" and so on, Adebanke, in her extraordinarily creative way, retains access to her otherwise unbearable feelings. She is able to channel her feelings into poems and find relief. *My Mother / I look upon your face / And all I see is beauty / I look into your eyes / And I see Darkness / I search 4 U / But cannot find / I cry 4 U* . . . Certainly Adebanke's capacity to express her pain in poetry has played a part in why she has survived so well. Now in college in England, struggling with some depression and interpersonal problems, she told me, "When I feel something, I write a poem." She plans to come to this country to study criminal psychology.

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When I was a resident at Johns Hopkins, Dr. John C. Whitehorn, our professor of psychiatry, believed that a patient's prognosis was dependent less on the diagnosis than on the person's interests and strengths, on their creative energies. One of my patients, whom I will call Johnnie, certainly proved him right. She is an excellent example of the life-saving functions of the creative life.

Johnnie was named for her father, who had died before she was born. Her mother, incapacitated, put all the children in an orphanage but the baby, whom she gave to an aunt. When Johnnie was eighteen months old the aunt returned the baby to her mother. The mother, who had not bonded with the baby, was beset with guilt. Why should this infant escape the fate of her brothers and sisters? So Johnnie, too, entered the institution, but she had no contact with her siblings.

Johnnie was no doubt seriously depressed by the loss of her aunt/mother, but in order to survive in the depriving atmosphere of the orphanage she had to bury her grief and adapt as quickly as possible. She won over everyone by taking on the identity of a "Little Merry Sunshine." One day, at the age of twelve, when she was being spanked by the matron, she turned around and caught the smile on her face. Johnnie knew she had to get away. So she began to misbehave, knowing it would lead to her being discharged to her mother's care.

During all those long years in the orphanage, in addition to her "Merry Sunshine" persona, she employed another coping mechanism: she harbored the dream of learning to play her father's violin and coming to Baltimore to the Peabody Conservatory. This dream she eventually fulfilled, only to collapse with a serious mental illness. She was haunted by musical hallucinations; in her panic and despair she walked in front of a streetcar. For her own safety, she was hospitalized. Her recovery was a long and painful one.

Thanks to her fine inheritance and a loving aunt who must have encouraged her early autonomy, Johnnie had had the strength to keep her head above water until help arrived. Her strength to cope — her creative energy — made it possible for her to grab the hands which the hospital and I extended to her; she was able to rise again from the slough of despond.

During her life, there were many satisfactions. A touch of "Little Merry Sunshine" remained in her remarkable ability to make friends. Her violin music was the supreme joy of her life. She learned to love, to receive love, even to suffer and surmount loss. After five years of marriage, her doctor husband died from an anesthesia mistake. In her sixties, she faced nobly her own approaching death.

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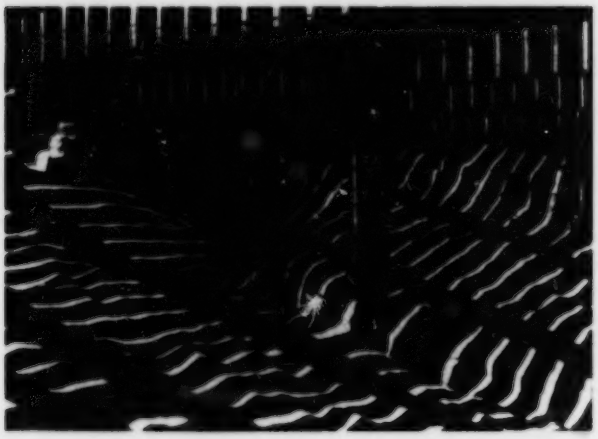
Johnnie's music was a powerful healing force in her life. How is it that creativity heals? I think of pain as the fuel that burns intensely underground, fusing the primitive needs and passions—both love and hate—with the more sophisticated desires and skills; the resultant residuum being beauty that has never existed before. The child who employs his artistic skill and self determination in a struggle to save himself – - biding his time until he can break free from the noxious situation— may

find the creative path more deeply incised and more essential to existence than might otherwise be the case.

The creating does not make the pain go away; but it does provide a respite; it assists in the subsiding of the pressure in the molten lava within the volcanic cone. In some cathartic way, the very reexperiencing of the early childhood pain in the creative process brings relief; a transmutation into a sense of exultation and joy.



The artist "Mrs. Seymour", who as a child collected colored glass to remind her of her lost grandmother's colorful clothing, (see Young, *Zero to Three*, February/March, 1996) told me recently of the difficulties she goes through when she creates. She finds it painful to be urgently eager to paint when most of the time she is so busy earning a living she can't get to it. When she has finally made time and has become deeply engrossed in her painting, it is equally painful to break away when duty demands. During the two weeks she had been almost "possessed" in working on her Rothko-like canvas, she experienced a "soft, smooth feeling." It was so blissful, so all-encompassing, she resented the ringing of the phone, the person at the door. When she had completed the work—as wonderful as the process had been—she felt strongly, "I'll never go back there again!" As she explained, "the place where she goes" when she paints is so far away from life—requires so much solitude—she is put in an impossible dilemma. She loves her art dearly, but it is as though she has to choose between her art and life itself; it is almost impossible for the two to co-exist. If she stayed in that place where she goes to create, she feels, the rest of her life would be a disaster. And yet, after a period of time, there comes the urgency to paint again.

Is this painful process characteristic of all creation? Is it as though the artist is not only giving birth to a baby but she is creating by her own hands the infant, cell by cell, from the embryonic start? With Mrs. Seymour, it is quite clear that this painting does reach back into both childhood bliss and childhood pain. When the work was finished, all she saw was beauty. She was not aware, until it was pointed out to her, that the painting she had completed was done in colors she associated with her beloved grandmother. Is it possible that her reluctance to go back to the "soft, smooth feeling" is related to her inability to remember the loving relationship with her grandmother? If she remembers, she must face again the agony of her loss.

I am sure Mrs. Seymour experiences a feeling of exhilaration, a sense of awe, almost of disbelief that she has produced this beauty. But the product, the work of art itself, is less important than the process of creating in itself. By means of this painful abreaction [the reexperiencing of a painful situation without realizing she is doing so], has she been born again into the beauty of their early love? Recently she put it into words, "When I am painting, I am loving." Certainly she can exclaim, like young Proust after he had written his first sketch, "I was so filled with happiness . . . as though I myself were a hen who had just laid an egg, I began to sing at the top of my voice." (*Swann's Way*, p. 256).

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Since my earliest childhood a barb of sorrow has lodged in my heart. As long as it stays I am ironic—if it is pulled out I shall die. —Soren Kierkegaard, p. 23.

Soren Kierkegaard never revealed—if he knew—what had caused the barb of sorrow that lodged in his heart. In his diary, he indicates that it was somehow connected with his terrible rage toward his beloved elderly father whom he held responsible for his depression. Whatever the source of the early damage, it resulted in his breaking off of his engagement, and his suffering in conflict for the rest of his short life, despite the fact that he was one of the clearest thinkers in his field of religion and philosophy. Barb safely in place, he had the one satisfaction, his creativity. "How true . . . is the remark I have often made about myself that like Sheherazade who saved her life by telling fairy tales, so I save my life or keep myself alive by writing" (p. 59).

We therapists must heed Kierkegaard's warning: there are some "barbs" it is wise not to tamper with. How sensitively and cautiously we must proceed. How respectful we must be for the patients' resistances. Forty-five years ago I worked with a young veteran, whom we will call Jim, who was ill with manic depression. Before the days of lithium, he dared not examine facts nor memories from his childhood. After he was medicated, I learned the rudiments of his life on the farm as the only child of a young nurse and her elderly husband. That he was a very angry little boy who had little curbing of his aggression was clear. When I knew him in his twenties, he lived in dread that when he was hypomanic his rage would lead to violence, for there was no pause between thought and action. He eventually married and had a child, although he held himself aloof from intimate communication. When Jim was well into his sixties, he returned to therapy, for he was on a "high" he could not get down from. In a very few sessions, he himself finally had the courage to remove the

barb which had "lodged in his heart". He had hidden from himself all his life the rage he felt toward his mother for keeping him close to her and away from the father he longed to know.

Why did this outrage have to be so deeply buried, even from himself? For a boy who was totally dependent on his mother when his aged father died—a boy who had been permitted to kill a goose when he was angry—the knowledge of these feelings would have led to his suicide to avoid murder (and almost did). With a successful life behind him, Jim could afford to take the risk of removing the barb. I suggested he go home and tell his wife the story—she who had stood by him through thick and thin, with whom he had shared so little. Miracle of miracles. The removal of the barb—in his own time—did not produce tragedy. Jim got down from his "high" and the gulf between him and his wife has dissolved.

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By means of psychotherapy with Johnnie and psychoanalysis with Mrs. Seymour, we were able, after long hard work, not only to remove the block which had occurred in their artistic gifts, but an incapacitating block to living. However, in our practices, we often encounter people whose mothering has never been "good enough", to use Winnicott's term. These unfortunate children have received enough responsive care from someone to grow to an adulthood in which they are proficient in some areas, but they are seriously handicapped. The two essential worlds of self we saw developing in Cai when she was fascinated by the rain and wind—her beginning love for herself alongside her love for her mother—were not possible for these children. As adults, they have great difficulty in their relations with people; inevitably experiencing pain and disappointment. As gifted as many of them are, they are either blocked in their artistic attempts or they stop trying for the artistic process fails to give them pleasure or meaning. Their pain cannot "make the way open"; their gifts lie useless. Because of this, the world is a lesser place. But the greater tragedy is that they cannot even use these talents as coping mechanisms to transmute the pain into a reason for living. They are unable to comfort themselves, to love themselves; they have no reliable way of bringing themselves back into a fragile equilibrium.

We are all familiar with the work of René Spitz and many others who observed the withdrawal, the apathy, the psychological and sometimes literal death of institutionalized infants who were physically but not psychologically nurtured. At a March, 1996 conference sponsored by the Lucy Daniels Foundation, psychoanalysts Jack and Kerry Kelly Novick showed videos from their research project of a teen-age mother with her normally responsive infant. The mother's gaze toward the boy was intermittent; when she handled him she was rough. When the couple was filmed at eleven months, there was joy in the little boy's movements and feeling for space; he was responsive to others. In the mother's aggressive playing "catch," she accidentally hit him on the head with the ball. A mutually exciting game of hitting each other with the ball ensued. The boy became bewildered, turned away; then proceeded to hit himself on the head. A few months later he was biting other children. Her aggression had become his. At fifteen months "he refused to let his mother in." The Novicks felt strongly that a sadomasochistic relationship between the mother and child was firmly in place. The boy had had to accept the only coping mechanism available to him that would engage his mother's attention, one that might well, without intervention, cripple his character permanently.

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Let me now begin to shift back to the world of Tyler and Cai—the world that most of us are fortunate enough to inhabit—to see how we fare in adulthood. How well will our solid foundation stones and our creative coping skills—established by our long relationship with "good enough" parents—sustain us in the face of adult disaster? We all know or know of scientists, writers, a movie star, even a railroad engineer—people from all walks of life—who have suffered permanent loss of the full use of their bodies by illness or accident, who are examples of courage to their children and an inspiration to us all. They have been able to make the shift from one means of creative expression to another and live lives in which they are productive and which give them a sense of worth and meaning. This remarkable ability to start over again in whatever way is still possible must indicate that their resilience and capacities for adaptation to adversity were well developed while they were very young. One of the most extreme examples I know of creative living is that of a surgeon friend, Duncan Holbert, who developed polio during the terrible epidemic of 1947, when he was exhausted from the burden of carrying sick children as well as caring for them. He spent the rest of his life in an iron lung. With the aid of The March of Dimes he retrained as an allergist. Each day he saw patients while strapped in a wheel chair, breathing with a portable machine, with the assistance of a nurse who did the laying on of hands. He made the diagnoses, prescribed the treatment, and did the psychological counseling. Duncan continued to be there for his young children and to support his family financially.

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Whether we are artists or not, living creatively is important to each and every one of us. We work-work-work, we rush-rush-rush from one thing to another. When is there time to catch up with ourselves, to know ourselves, to face what we feel, to deal with the aftermath of the losses we all must endure? We need to take the time to allow for the re-creation of ourselves. We may never be able to identify just why feelings of depression

have descended upon us in the midst of a happy vacation. Some unseen, unknown pain needs to be heard, acknowledged, re-experienced, in order to redress the balance of our lives, to return us to a state of equilibrium. We are no longer three years old. Tired and out-of-sorts, we cannot go to our mother with the request, "Wock me Mamma." Instead, our own internal caring-for-ourselves mechanism must go to work. From experience we know that the feelings of depression are transient; if we can remain with them — instead of running off to the tennis court, — they will pass. We are rejuvenated and will return to our daily lives refreshed. Could we say that we have had the benefit of catharsis? Having relived once again — almost completely outside our awareness — our own Greek tragedy — our early losses or serious disappointments — do we not rise again, this time the conqueror?

My friend Michel was a bright, sensitively-alert little boy who has grown up to become an oncologist. Every day he and his staff fight a battle for their patients' lives. Every night Michel must face the fact that half of his patients will die. This is a heavy burden for a young man.

Often on weekends he plays the violin or viola in a string quartet. Is it possible that some of the pain of Michel's present profession reaches back like "a taut fishing line into the pool of his childhood," as Basney indicates? When he was quite young, Michel experienced the birth of a brother. He was caught in the heroic struggle of a serious sibling rivalry. His primitive impulses to wipe this intruder off the face of the earth were great; sometimes he had to be physically restrained. With the aid of understanding parents and the integration that comes with maturity, his capacity to love gradually subdued and overcame the aggression. The brothers became good friends.

When Michel makes music, the composers' struggles become his own. He must save the little boy from the clutches of the Elfen King. Back and forth, life and death. As a child he had won the battle within himself. As an adult in his daring profession, the outcome is uncertain. Half the time, when the ride is over, "the child in his arms is dead."[1]

The chamber music gives Michel the strength to go on. As he and his friends play, they struggle through the fundamental human dilemma until resolution is achieved. One must accept the mortality of the human body. The human spirit is immortal.

Knowing the kind of person Michel is, I am sure his patients are sustained by the certainty that, as they leave their earthly bodies behind, their spirits remain alive within his encircling arms.

Michel's choice of profession may have been determined not only by his identification with his father and mother—both of whom are physicians—but may have arisen from a sublimation of his early struggle with hate versus love, destruction versus saving life. Most of us, if we dare to look beneath the surface, will find hidden agendas from the past which we are settling over and over again as we work in our various "caring" professions.

There is no question that our work demands all our creative energies and gives us great satisfaction. But "all work and no play makes Jack a dull boy." We need to take time out—to paint that picture, to read those books, to make the cake, to catch the fish—to administer to ourselves alone, so that we "open the way" to a sense of peacefulness and joy. This is creative living.

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1. Reference to Goethe's poem, *Der Erlkonig*, put to music by Franz Schubert.

Creativity in the Youngest

Lois Barclay Murphy

Washington, D.C.

Creative adults know what they are doing. When they are creative, they usually act by choice and plan. But babies are born creative—it takes time to learn to follow directions and to imitate.

Spontaneous, or natural creativity can be seen during the early years. I watched a little boy, not yet two years old, as he passionately drew circles with a pencil, as if he had just discovered them—round and round and round! He seemed to be thrilled to see his effort produce these wonders.

If we give very young children materials to play with, they will make experimental patterns. If they don't have art materials handy, they will use what is available. My three-year-old granddaughter delightedly drew "pictures" with toothpaste, on a window. When I protested gently that this was not what toothpaste was for, she said, "When I be a big mommy, my children will not draw pictures on the window with toothpaste. I will put it way high up!"

As I sat on a bench in the zoo-park, I watched small boys hopping, skipping, and jumping alongside their mothers—not walking quietly until they were five years old or so. If there was a curb, the small boys jumped up on it and down from it, as if it was there just for that purpose.

We can call this unconscious creativity—the youngest children are not making something "to show mother." By the age of four or five, children have the idea of making something—drawing a picture to show Mommy—and from this time on, creativity is often a response to a request.

• • •

More than 40 years ago, I recorded some observations of my 14-month-old granddaughter, Colleen during a visit that she, her mother, and her baby brother made to her grandfather and me. I wrote that Colleen was "competent and resourceful in a spontaneous, ingenious way." Perhaps these notes will encourage others to observe the creativity of the very young.

Colleen at 14 months doesn't talk much—that is, she doesn't use many English words—but she communicates a great deal. Waking up in the morning, she points at the window shade, looks at you, and indicates that she wants the shade to be pulled up. Then she leans over the railing of her crib and points down, to indicate that she wants to get down. If I pick her up but don't feed her right away, she gets restless. If I ask her, "Do you want a cracker?," she nods her head vigorously, with big smiles, as if to say, "Now you've got the right idea."

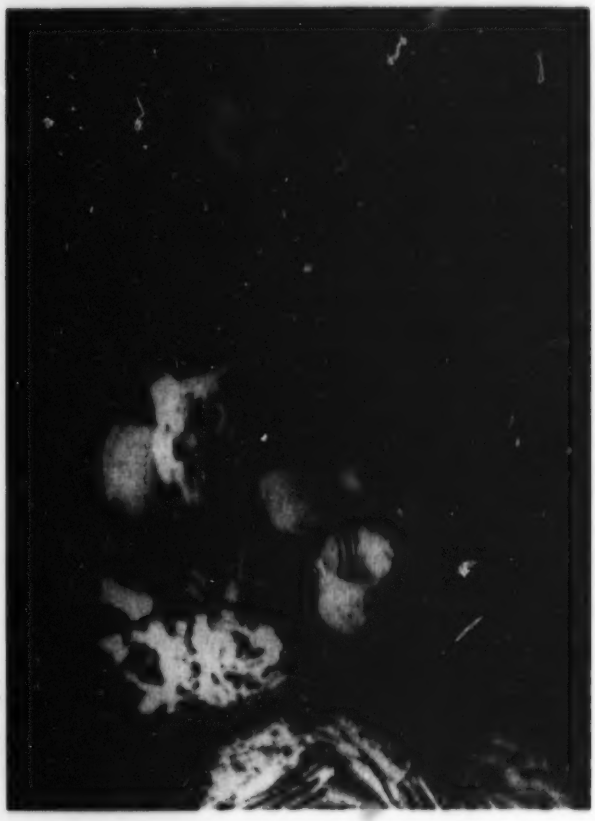
The other day, I was looking through a magazine in the living room. The radio was on, broadcasting some speech. Colleen came in, went over to the radio, turned the knob round and round until she got some music, trotted over to me, started to dance and wave her arms, then raised her arms to tell me that she wanted me to lift her up so that we could dance together. She is always thrilled when we understand what she is "asking for."

Colleen is a very giving little person. Whenever she has a cookie or a cracker, she is apt to take a bite, then offer it to you for a bite, then take another bite herself. She is completely unpossessive and is very willing, generally, to accept a substitute for something she has that has to be taken away. But she does get jealous of her brother. This morning, I got her up and changed her and took her into Midge's room to get a clean shirt. She saw the baby asleep in bed with her mother and immediately rushed to her with a big hug and kisses. She jumped up and down until she was in bed with her mommy too.

She loves a little kitten that comes around from time to time, and the kitten loves her. She will pat it, hug it, lug it around by the neck or stomach, feed it her cookies, and pull its tail—and the kitten comes back for more.

Colleen is fascinated by children. She explores them the way she explores everything else—patting, poking, rubbing them all over, putting her finger in their ears or nose or eyes or mouth. It doesn't occur to expect from children anything like the dancing, feeding, loving, etc that she expects, and asks for, from adults. For her, children are another species, like cats or dogs or teddybears.

In any new situation, Colleen acts like a little dog. She runs around and around, making herself at home and exploring—not sniffing, like a dog, but touching everything until she feels familiar. She takes things out of drawers or boxes and off shelves and tables as long as she sees anything new. But when you say, "No-no," as I do about the encyclopedias, she respects the prohibition. The only things she has hurt are things she got into when no one was there to explain the limits to her. The curtains on the French door in the dining room kept her from looking out, so naturally she yanked at them to make an opening to see through, and since the curtains were nylon, they were ripped to shreds. But Colleen never hurts anything if you are there and explain that



Lois Barclay Murphy

she should not do so-and-so. In order to show that she understood, when I said, "No-no" about some books on the coffee table one day, she ran over to the encyclopedias and smiled, pointing to them without touching them. She looked at me as if to say, "And I'm not supposed to touch these either, am I?"

With any bump or disaster, Colleen may get upset for a moment (though mild bumps she can take in her stride, with perhaps a grin), but she is very ready to be comforted. After a little distraction, like a dance or a song, she will be cheery in two minutes.

She loves to ride-a-cock-horse and play somersault games and will initiate them by climbing on my lap and jigging up and down, leaning backward, or making other appropriate movements.

Colleen likes to feed herself, and like any normal 14-month-old child, will get everything all over her face and bib and tray as she does it. Then, when her mother brings out the wash cloth, she will joyously swish it around to help in the cleaning-up.

She doesn't like to have her face washed or hair combed, but accepts the fact that it gets done, in the sense that she forgives you after it is over, and even puts up with the process with little protest if you use a soft wash cloth and use little, quick dabs, without ever covering her whole face at once. Once there was a piece of dirt on her nose and I removed it; she fussed, but when I showed it to her, she made brushing motions on her hair, as if to say, "Yes, I know it's one of those things that has to be done."

Colleen loves to do as much as she can by herself, but when there is a stranger around or she is in any puzzling or new situation, she will run to a familiar person and cuddle into a shoulder, peeking around until she feels clearer about the new object.

She uses many different methods of getting around. She likes to walk and dance, but she creeps upstairs on her hands and knees at times, and in the yard, if she feels insecure on a piece of rough ground, she will use the sit-creep that she used before she could walk. Sometimes she plays kitty or doggie and crawls on all fours, more as a joke than as a method of locomotion. When she hears rhythmic music, she responds whether she is sitting or standing—keeping time with her back, swaying, waving her arms (which seems to be entirely her own idea; I do not know of her seeing anyone waving arms in a dance), jumping, or dancing in a circle on her own. "Being danced" by one of us is one of the most gleeful things she knows. She loves any kind of rhythmic motion and flows into it with complete freedom.

When she is excited, Colleen bats her hands up and down on her high chair tray or makes jumping movements without getting her feet off the floor—that is, she feels like jumping up and down, but isn't quite secure or agile enough yet to go that far.

She is very eager to maintain contact. This comes naturally to her, but in moments when she feels doubtful about a relationship—for example, when an adult is preoccupied, or expects something of her that she does not understand, or is on the verge of disapproval—she will smile (sometimes a rather forced, squeezed-up grin) and squint, as if to say, "Let's keep everything cheerful, shall we?" She uses this smile instead of words, in a definitely manipulative and controlled way. This is very different from the smile that comes from inside her, usually spreading slowly over her face when she is absorbing some new, interesting experience. It is also different from the giggling laughter of delight that comes when she is spontaneously stimulated. A smile, in other words, is her way of keeping the world the way she wants it.

Colleen is also very empathic and quick to sense the mood of another person. Once, when I made a comment to her mother about something that had been tough for me, she caught the tone of my voice an ran over to me, threw her arms around my neck, and kissed my cheek, as if to say, "Well, I love you, and doesn't that make up for everything else?"

Thus in both impersonal and personal situations, Colleen is competent and resourceful, in spontaneous, ingenious ways.

37

Benjamin Spock

receives ZERO TO THREE's

Dolley Madison Award

At ZERO TO THREE's Eleventh National Training Institute, held in Washington, D.C. December 6-8, 1996, Dr. Benjamin Spock was awarded the Dolley Madison Award for Outstanding Lifelong Contribution to the Development and Well-being of Very Young Children and Their Families. ZERO TO THREE Founding Board Member T. Berry Brazelton, a student, colleague, and friend of Dr. Spock presented the award, which read as follows:

Fifty years after the first publication of The Common Sense Book of Baby and Child Care, *Benjamin Spock is probably the most well-known pediatrician in the history of the world. Forty-six million copies of six editions of* Baby and Child Care *in 39 languages have been sold, and a seventh edition is due in 1998. Dr. Spock's influence has become woven into the fabric of everyday life.*

But Benjamin Spock's extraordinary success in reaching generations of parents and other readers is not ZERO TO THREE's only reason for presenting him with the Dolley Madison Award. We honor him also because he has shaped and inspired our own vision, through the personal guidance he has given to many of ZERO TO THREE's founders and through the leadership he has offered to all of us.

We are an organization that works very hard to integrate many different perspectives and bodies of knowledge about the development of children and families. Benjamin Spock's seemingly boundless capacity to learn from the insights of psychoanalysis and family systems theory, the expanding knowledge base of developmental pediatrics, and the practical wisdom of parents and caregivers is awesome. Even more impressive is his ability to distill sophisticated understanding into the language of common-sense—"Trust yourself. You know more than you think you do."

We are an organization that believes that "how you are" with a baby or a family is as important as "what you do." And for more than 50 years, Benjamin Spock has shown parents and practitioners alike how we can demonstrate respect, trust, and care—for our children, for ourselves, for each other, and for the world we share.

Over the past half-century, the configurations of our families have changed dramatically. The focus of our deepest fears has shifted from the threat of imminent nuclear holocaust to the devastating impact of violence within our own homes and communities. To guide our children through tumultuous times, Dr. Spock reminds us, we cannot simply preach cooperation, kindness, honesty, and tolerance of diversity. We must practice these virtues, at home and through community action.

Publications:

Language in Cognitive Development: The Emergence of the Mediated Mind (1996) —Katherine Nelson (Cambridge University Press, 40 West 20th Street, New York, NY 10011-4211) $49.95.

The basic premise of this book is that language is a catalyst of cognitive change during early to middle childhood. Focusing on the young child (from roughly 1 to 5 years of age) in a socio-cultural world, learning and using language for her own purposes, becoming a more skilled and better informed participant in the activities of that world, the book brings together disparate views of the child's cognitive development from biological foundations, cultural contexts, mental constructions, and social influences in order to create a model of cognitive development that recognizes the central role of communication—and, in particular, the role of language. The author sees her challenge as understanding how the open nonverbal, illiterate, and ignorant mind of the infant comes to acquire the knowledge domains, categories, and theories that Western culture (among others) embraces.

Nelson argues that the individual child constructs representations—of the real experienced world, of desired states, of pretend worlds, of others' worlds—and that these representations are from the beginning constructed in collaboration with social others, adults and peers. In a process of collaborative construction, the young child moves from mimetic activities (routines, play) to the use of narrative, and thence to the use of the full range of a culture's symbols. As the author observes, "The shared meanings of the community thus gradually enter into the individual child's knowledge representations and to a large, but nonetheless limited, extent take over the child's mind. Thus individuality is balanced with sociality."

Early Intervention: Cross-Cultural Experiences with a Mediational Approach (1996) —Pnina S. Klein (Garland

Publishing, Inc., 717 Fifth Avenue, New York, NY 10022) $35.00.

In our rapidly changing world, Pnina Klein observes, one can hardly predict the situations that a child will be required to cope with in the future. Under such conditions, young children need to develop flexibility of mind, an ability to learn from new experiences and become more sensitive and socially adjusted. *What* children learn may differ from family to family and from culture to culture, but the factors that turn an adult-child interaction into an enriching learning experience for a child may be identified within existing childrearing practices, and parents or caregivers can be helped to identify and increase them within interactions with children.

This book presents a theoretical and practical model for early intervention, the Mediational Intervention for Sensitizing Caregivers (MISC), and documents its cross-cultural application in Israel, Sweden, the United States, Ethiopia, Sri Lanka, and Indonesia. Rather than focusing on enhancing children's specific skills or abilities, the MISC is primarily concerned with affecting children's need systems and creating dispositions that are essential for future learning. These are: 1) focusing on things; 2) seeking meaning; 3) inquiring about and associating past, present, and future experiences; 4) seeking success or approval; 5) evaluating one's own actions; and 6) planning before doing. Rather than training caregivers with structured materials, the MISC approach "sensitizes" caregivers in three domains: 1) their own conceptions of their children, themselves, their power to affect children's development, and their objectives in childrearing; 2) the need for establishing and maintaining an expressive communicative cycle of interaction with the children; and 3) an awareness of basic patterns or criteria of adult-child interaction that constitute a mediated learning experience for young children. In addition to describing and illustrating the MISC approach, the book provides observational guidelines and examples of MISC training materials used in different countries.

The Culture of Education (1996) —Jerome Bruner (Harvard University Press, 79 Garden Street, Cambridge, MA 02138) $24.95.

"A system of education," argues Jerome Bruner, "must help those growing up in a culture find an identity within that culture. Without it, they stumble in their effort after meaning. It is only in the narrative mode that one can construct an identity and find a place in one's culture. . . . A failure to equip minds with the skills for understanding and feeling and acting in the cultural world . . . risks creating alienation, defiance, and practical incompetence. And all of these undermine the viability of a culture." Recognizing that schooling is only one small part of how a culture educates its children, Bruner draws on his own and others' research to describe new perspectives on teaching and learning. The new "pedagogy of mutuality," for example, presumes that all human minds are capable of holding beliefs and ideas which, through discussion and interaction can be moved toward some shared frame of reference. Contributing to this perspective are research on infant-mother intersubjectivity, the young child's theories of mind, metacognition, and collaborative learning and problem solving. Looking ahead to psychology's "next chapter," Bruner suggests that "if psychology is to get ahead in understanding human nature and the human condition, it must learn to understand the subtle interplay of biology and culture. . . . The dilemma in the study of man is to grasp not only the causal principles of his biology and his evolution, but to understand these in the light of the interpretive processes involved in meaning making."

The Arts and Human Development (1994) —Howard Gardner (Basic Books, 10 East 53rd Street, New York, NY 10022-5299) $16.00, trade paperback.

First published in 1973, this work suggests that the arts involve a communication of subjective knowledge between individuals through the creation of "nontranslatable sensuous objects." When involved with the arts, people create and perceive symbolic objects that can affect others on a variety of levels. The author posits three systems, present in humans at birth, that make involvement in the arts possible; these systems are *making, perceiving,* and *feeling*. Tracing the process through which infants become symbol-using young children, the author notes that the earliest years make an important contribution to later artistic participation. In the feeling realm, infants begin to understand communications of mood on the part of others. In the making realm, one-year-olds begin to use rhythm (including rhythmic drawing strokes). Perceiving (the perceptual discrimination required in the arts) may begin in the first year, as infants learn to recognize pictures and musical examples, with some children tending to understand and express themselves musically before they do linguistically. In toddlerhood and beyond, symbol systems confer enormous power upon the child at the same time that the child experiences new feelings (more subtle and complex, perhaps, than those of infancy), makes finer discriminations, and evolves more intricate motor patterns. All these will eventually be combined with the various symbolic systems, potentially producing "an enormously rich and varied creator, perceiver, performer, and/or audience member."

Emotional Development: The Organization of Emotional Life in the Early Years (1996) —L. Alan Sroufe (Cambridge University Press, 40 West 20th Street, New York, NY 10011-4211) $49.95.

The subject of this book is human emotion, with a focus on the early years and the core developmental processes

underlying the emergence of specific emotions and the capacity for emotion regulation. Sroufe discusses the expression of specific emotions (such as joy, fear, and anger), more complex emotional reactions, the place of emotion in the organization and stream of behavior, ties between emotion and other aspects of functioning (such as cognition), and the management or regulation of emotions. Using a central concept of regulation, Sroufe also includes aspects of cognitive, social, and physiological development, as well as particular aspects of attachment. The author suggests that all emotions are expressions of arousal or "tension": Whether a given emotion can or does occur depends on the developed capacity to generate tension and on the meaning of an event in its context, which changes with age. In considering both normative development and individual differences, a central thesis of this book is that development always builds on what was previously present. Emerging forms of emotion build on precursors, and individual patterns of emotional regulation build on patterns of regulation earlier achieved within the caregiving relationship.

Looking In, Looking Out: Redefining Child Care and Early Education in a Diverse Society (1996) —Hedy Nai-Lin Chang, Amy Muckelroy, and Dora Pulido-Tobiassen (California Tomorrow, Fort Mason Center, Building B, San Francisco, CA 94123) $27.00 plus $5.00 shipping and handling. Quantity discounts available.

Designed to provide readers with a comprehensive "framework and vision" for early childhood education in an increasingly ethnically diverse society, this report is based on site visits and more than 400 interviews with parents, child care providers, resource and referral staff trainers, community college faculty, and others involved in the preparation of child care professionals. The report's guiding premise is that young children's experience in child care can influence how they feel about themselves as well as their ability to connect to their families and communities; child care can shape their views about how they should interact with children and adults who look, speak, and act differently from themselves.

In the report, California Tomorrow offers a set of five Principles of Quality Care in a Diverse Society. These are:

1. Combat racism and foster positive racial identity in young children.
2. Build upon the cultures of families and promote respect and cross-cultural understanding among children.
3. Preserve children's family languages and encourage all children to learn a second language.
4. Work in partnership with families to implement these principles.
5. Engage in on-going reflection and dialogue about issues of race, language and culture.

The report's discussion of these principles is followed by an analysis of the implications of the authors' findings for professional development, recruitment, and additional research on child development.

Supporting Latino Families: Lessons from Exemplary Programs—Volumes I and II, resumens en espanol (1996) —Angela Shartrand (Harvard Family Research Project, 38 Concord Avenue, Cambridge, MA 02138) $14.95 for both volumes, plus $3.50 shipping and handling.

This report highlights 11 family support programs that are serving the Latino population, one of the fastest growing groups in the United States. Beginning with an outreach letter to selected family support programs from the Family Resource Coalition's Latino Caucus mailing list, the researchers selected a diverse group of programs serving young Latino children and their families; they then used document analysis, telephone interviews with directors and program staff, and parent focus groups at four sites to create the report. Volume I of the report analyzes the programs' strategies and distills lessons for practitioners. Volume II provides an in-depth profile of each of the 11 programs, including its history, key features, evaluations, funding sources, and contacts for further information. The report found that good programs: 1) incorporate concepts of "bien educado" into their philosophies; 2) help families navigate an often intimidating US "system"; 3) provide culturally and linguistically relevant child care; and 4) encourage community involvement and leadership.

The National Directory of Children, Youth and Families Services, 12th edition (1996) —Marion L. Peterson, Publisher (National Directory, P.O. Box 1837, Longmont, CO 80502-1837) $84.00 plus $6.00 shipping.

The 1996-97 edition of this 900-page guide provides the names of key professionals, descriptions of services, current addresses, and phone and fax numbers for state, county, and independent city human and social services, health, juvenile justice, and other agencies and services. Specific categories include foster care, adoption, emergency services, mental health, alcohol and substance abuse services, juvenile and family court judges, public and private treatment centers, information/referral phone numbers, and community service programs. A directory of "who's who in federal and national children, youth, and families services" provides information about Washington, D.C., Regional Federal Offices, national resource centers and clearinghouses, and national organizations concerned with children, youth, and families.

Multicultural Issues in Child Care, Second Edition (1997) —Janet Gonzalez-Mena (Mayfield Publishing Company, 1280 Villa Street, Mountain View, California 94041) $12.95. Quantity discounts available.

This book, the author observes, is about conflict. "When

cultures collide," she observes, "we can't just 'make nice' and hope the differences will resolve by themselves." This book, therefore, was designed when first published in 1993 to open people's eyes to cultural diversity and to help adults relate across cultures with both children and adults. The second edition contains more examples than the first of cultural differences and potential differences that can arise in such areas as toilet training, feeding and sleeping routines, attachment and separation, play and exploration, and socialization. Gonzalez-Mena emphasizes practical, immediate concerns and strategies for resolving differences, living with them, gaining from them, and celebrating them. The new edition also includes a bibliography of books and articles designed to help students learn about new ideas and cultures.

Children, Families, and Government: Preparing for the Twenty-first Century (1996) —Edward F. Zigler, Sharon Lynn Kagan, and Nancy W. Hall (Cambridge University Press, 40 West 20th Street, New York, NY 10011-4211) $69.95, hardback; $24.95, paperback.

Since the forerunner of this volume was published in 1983, the social and political landscape of the United States has changed dramatically, particularly in the arena of child and family life. Even as families and children face new challenges and media attention to child and family matters is at an all-time high, the editors note, effective policy solutions often seem to be absent. Believing that policy must be built on a solid, empirical understanding of what we know about the needs of children, the editors also believe that some social conditions are so severe and pressing as to warrant policy construction or immediate pragmatic action even in the absence of a consensual body of data. They have therefore asked all contributors to the volume to address the importance of scholarship, the positive and negative ramifications of policy action and inaction, the idiosyncratic nature of the policy process, the importance of context and timing, and the nature of federalism.

The book's three sections: 1) explore social policy performance with regard to children and families nationally and internationally; 2) examine specific social problems (including welfare reform, child care, family leave, the needs of children with disabilities, child abuse, and adolescent pregnancy and parenting, among others); and 3) discuss influences on the policy process, including multiculturalism and the media. Contributors include Meryl Frank, James Gallagher, , Sheila Kamerman, Joan Kaufman, Lorraine Klerman, Jane Knitzer, Susan Muenchow, Victoria Seitz, Sally Styfco, Sheldon White, and Brian Wilcox, among others.

Videotapes:

Learning Language and Loving It: An Introduction. Produced by the Hanen Centre, Toronto, Ontario, Canada (1991). Available from The Hanen Program, P.O. Box 1213, Buffalo, NY 14242-1213. Tel: (416) 921-1073; Fax: (800) 380-3355. 23 minutes. Video, $55; Guidebook, $35 (plus shipping and handling).

This videotape is based on the guidebook, *Learning Language and Loving It: A Guide to Promoting Children's Social and Language Development in Early Childhood Settings* (Weitzman, 1992), produced by the Hanen Centre, which provides intervention to young children with language delays and is dedicated to help children reach their potential as playmates, learners, and successful communicators. Both guidebook and video offer guidelines and practical suggestions to teachers for promoting interaction, language learning, and emergent literacy in young children within everyday contexts. These include: 1) Getting every child "in on the act"— observing, waiting, listening, and following the child's lead; 2) Providing information to promote learning — labeling, expanding, modeling, explaining, and describing; and 3) Letting language leading the way to literacy, fostering a lifetime love of learning through books.

Learning Language and Loving It: The Teaching Tape with User's Guide. Produced by the Hanen Centre, Toronto, Ontario, Canada (1993). Available from The Hanen Program, P.O. Box 1213, Buffalo, NY 14242-1213. Tel: (416) 921-1073; Fax (800) 380-3355. 103 minutes. $95 (plus shipping and handling).

This four-part teaching tape was designed for use as an adjunct to Learning Language and Loving It. This tape illustrates in more detail the guidelines described in the introductory tape. Examples illustrate how teachers in early childhood settings implement or, in some cases, fail to implement strategies considered to be crucial to the promotion of children's social, language, and literacy development. Most examples on the tape are designed to stimulate discussion, problem solving, and analysis by viewers.

You Make the Difference in Helping Your Child Learn: Teaching tape and parent guidebook. . Produced by the Hanen Centre, Toronto, Ontario, Canada (1991). Available from The Hanen Program, P.O. Box 1213, Buffalo, NY 14242-1213. Tel: (416) 921-1073; Fax (800) 380-3355. 105 minutes. Video, $55; parent guidebook, $15 (plus shipping and handling).

This video and parent guidebook extend the Hanen Centre early language approach to all children. Nine modules show how parents can connect with their young children and foster self-esteem and learning during the natural conversations of daily living. Modules

include, among others, "Allow Your Child To Lead," "Adapt To Share the Moment," "Create! Create! Don't Hesitate" and "Connecting Isn't Always Easy — But It's Always Worth the Effort." The parent guidebook is written in simple language and illustrated with cartoons and drawings. Both guidebook and video are appropriate for all parents, including those with limited literacy skills and parents for whom English is a second language.

Observing Young Children: Learning To Look, Looking To Learn, with Trainer's Guide. Produced by Teaching Strategies, Inc. (1995). Available from Redleaf Press, 450 N. Syndicate, Suite 5, St. Paul, MN 55104-4125. Tel: (800) 423-8309; Fax (800) 641-0115. 28 minutes. $55 (plus shipping and handling).

This videotape, designed as a professional development tool for early care and education professionals in center and family child care homes, can also be used by anyone who observes young children as part of her daily work. The tape presents observation as an integral part of quality early childhood programs, a way of helping staff to: 1) learn about children in order to individualize programming; 2) evaluate programs, in order to adjust environment or curriculum; and 3) measure children's progress and development. The video presents scenes of children in a variety of situations, guides viewers in observing the activity, and discuss issues of accuracy and objectivity in observation.

Gentle Touch Infant Massage. Produced by Gentle Touch, Inc. (1996). Available from Gentle Touch, Inc. P.O. Box 6007, Asheville, NC 28816. Tel: (704) 254-0003 or 1-(888) 333-3936. 47 minutes. $59.95 (plus shipping and handling).

Infant massage offers parents the opportunity to learn the many ways babies communicate long before they are able to talk. This video begins with health care professionals describing and discussing the power of touch and the benefits of infant massage for children's healthy growth and development, as well as the creation of a special bond between parent and child. The tape illustrates various aspects of massage, including finding the best time for massage, positioning, soothing techniques, and using massage with babies with special needs. In three separate segments, the tape shows parents (including a father) demonstrating massage routines appropriate for babies at different developmental stages. Parents show respect for their babies by asking permission to touch, reading non-verbal cues, and responding sensitively. Viewers are encouraged to check with medical and therapeutic specialists before massaging a baby.

Conference Call:

MARCH, 1997

March 2-4: The National Committee to Prevent Child Abuse will hold a Healthy Families America Conference in Chicago, Illinois. Keynote speakers will include Lisbeth Schorr, Bruce Perry, and Evelyn Moore. Contact NCPCA, HFA Conference, 332 S. Michigan Avenue, Suite 1600, Chicago, IL 60604; WebSite, http://www.childabuse.org.

March 5-7: Ken-Crest Services and the Philadelphia Department of Human Services will present a conference in Philadelphia, Pennsylvania with the theme, "Children Who Are Medically Complex or Technology-Dependent: Meeting the Needs of Children and Families." Call (215) 844-4620x122 or visit WebSite, http://www.kencrest.org/-kencrest/medfrag.

March 11-15: The National Center for the Early Childhood Work Force will offer an Early Childhood Mentoring Institute, a five-day intensive seminar for mentors, program developers, and trainers, in Oakland, California. The Institute will include one track on how to start and refine a mentoring program and a second track, offering trainer certification, on the use of The Early Childhood Mentoring Curriculum. Contact the National Center for the Early Childhood Work Force, 733 15th Street, N.W., Suite 1037, Washington, DC 20005, tel: (202) 737-7700, fax: (202) 737-0370, e-mail: Mentor@NCECW.org.

March 21 and 22: Emerson College will sponsor a seminar in Boston, Massachusetts on "The Learning Style of Children with Autism and PDD: Implications for Communication Enhancement and Educational Practice." Speakers include Temple Grandin, Barry Prizant, Kathleen Quill, Diane Twachtman-Cullen, and Barbara Domingue. For information call (617) 824-8281 or fax (617) 824-8618.

APRIL, 1997

April 16-19: The National Coalition for Campus Child Care will hold its 1997 National Conference in Washington, D.C. with the theme, "NCCCC for Networking and Advocacy." Contact Gail Solit, Gallaudet University Child Development Center, 800 Florida Avenue, NE, Washington, DC 20002, tel: (202) 651-5130; Fax: (202) 651-5531; e-mail: GASOLIT@GALLUA .GALLAUDET. EDU.

April 17-20: Save the Children Child Care Support Center will sponsor the 20th annual Save the Children Family Child Care Conference in Atlanta, Georgia. Contact Lynn A. Manfredi/Pettit, Conference Manager, Save the Children Child Care Support Center, 1447 Peachtree

Street NE, Suite 700, Atlanta, GA 30309-3030, tel: (404) 885-1578x226; fax: (404) 874-7427.

April 19: The National Association for the Advancement of Psychoanalysis will hold its 25th annual scientific conference in New York City on the topic, "Childhood Trauma and Recovery: A Psychoanalytic Approach to Treating Patients of All Ages." Speakers will include Dorothy Bloch, Geraldine Youcha, Joseph Lichtenberg, Stella Acquarone, and Herman Roiphe. Contact Margery Quackenbush, NAAP, 80 Eighth Ave., NYC, tel: (212) 741-0515.

April 20-22: The National Center for Family Literacy will hold its Sixth Annual National Conference on Family Literacy in Louisville, Kentucky. Call NCFL, (602) 584-1133.

April 25-26: The Menninger Division of Continuing Education will sponsor a conference in Topeka, Kansas entitled, "Early Childhood Mental Health Issues in Multi-problem Families." Serge Lebovici and Susan McDonough will be featured speakers. Call Menninger Continuing Education, tel: (800) 288-7377.

April 28-30: Contemporary Forums will sponsor a conference in New Orleans, Louisiana on The Child with Special Needs (0-5 years). There will be a special two-day preconference on autism. Contact Contemporary Forums, 11900 Silvergate Drive, Dept. PR, Dublin, CA 94568, tel: (510) 828-7100, x); www.cforums.com (Dept.PR).

MAY, 1997

May 2 and 3: The Hincks Centre for Children's Mental Health will sponsor a workshop entitled, "Watch, Wait, and Wonder: An Introductory Training Workshop in Parent-Infant Intervention." The WWW intervention was featured in the recent CBC production, "When the Bough Breaks." Contact Edythe Nerlich, C.M. Hincks Institute, Toronto, tel: (416) 972-1935, x3341; fax: (416) 924-9808; e-mail: hincks@interlog.com.

May 12-14: Contemporary Forums will sponsor the 15th annual conference of neonatal nursing in New Orleans, Louisiana, with a preconference on Advanced Neonatal Physiology. Contact Contemporary Forums, 11900 Silvergate Drive, Dept. PR, Dublin, CA 94568, tel: (510) 828-7100, x); www.cforums.com(Dept.PR).

May 13-16: The C. Henry Kempe National Center for the Prevention and Treatment of Child Abuse and Neglect will present the 25th annual Child Abuse and Neglect Symposium in Keystone, Colorado. Call (303) 321-3963.

May 18-20: The Michigan Association for Infant Mental Health will hold ist 21st annual conference in Ann Arbor, Michigan, entitled "Infant-Caregiver Relationships: Broadening Our Perspectives." Speakers will include Linda Acredolo, Susan Goodwyn, Alison Clarke-Stewart, Cynthia Garcia-Coll, Rebecca Shahmoon Shanok, Susan McDonough, Betsy Lozoff, Sheila Gahagan, and Sharown Swindell. Contact University of Michigan, Conferences and Seminars, Room G121 South Quad, 600 E. Madison, Ann Arbor, MI 48104-1372, tel: (313) 764-4276, fax: (313) 764-1557.

JUNE, 1997:

June 6: The Maine Association for Infant Mental Health will hold its Conference'97 in Bangor, Maine, on the theme, "Hyperactivity and Disruptive Behavior in the Very Young Child: Guides to Intervention." Jean Thomas will be the major presenter. Contact Edward Hinckley, P.O. Box 101, Vienna, ME 04360, tel:fax: (207) 293-2051.

June 16-20: Syracuse University's College for Human Development and Continuing Education will present Alice Honig's 21st annual Quality Infant/Toddler Caregiving Workshop in Syracuse, New York. Faculty will include Alice Honig, Jay Belsky, Diane Keller, Thomas Fiscoe, John Friedman, Susan Snyder, Nan Songer, and Mary Anne Theiss. Contact Smita Mathur, tel: (315) 443-2757 or e-mail: SMATHUR@MAILBOX.SYR.EDU, or Dr. Honig, fax: (315) 443-2562.

June 25-27: Bank Street College will sponsor an Infancy Institute in New York City, featuring speakers Carolee Howes and Samuel Meisels. A one-credit graduate course, "Teaching College Students about Infants, Toddlers, and Families," will be taught by Rachel Theilheimer on June 23 and 24.

Call for presenters and papers:

The 1998 International Study Conference of ACEI (The Association for Childhood Education International), which will be held April 15-18, 1998 in Tampa, Florida, invites proposals for workshops and concurrent sesions concerning issues related to children from infancy through early adolescence. Suggested topics and submission guidelines are available upon request. The deadline for submissions is **May 1, 1997**. Contact Marilyn Gardner, Director of Conferences, ACEI, tel: (800) 423-3563; fax: (301) 942-3012; e-mail: aceiconf@aol.com.

New Periodicals

Applied Developmental Science (ADS), will begin quarterly publication in November, 1997. Edited by Richard M. Lerner, Celia B. Fisher, and Richard A. Weinberg, the journal will focus on the synthesis of research and application to promote positive development across the life span. With a multidisciplinary orientation, the journal will publish research employing a diverse array of methodologies, including multivariate-longitudinal studies, demographic analyses, evaluation research, intensive measurement studies, ethnographic analyses, laboratory experiments, analyses of policy and/or policy engagement studies, or animal comparative studies. Manuscripts reporting cross-national and cross-cultural studies, systematic studies of psychopathology, and studies pertinent to gender, ethnic, and racial diversity are particularly welcome. For subscription information and guidelines for contributors, contact Lawrence Erlbaum Associates, Inc., 10 Industrial Avenue, Mahwah, NJ 07430-2262, tel: (201) 236-9500; fax: (201) 236-0072.

Parenting Education Network (PEN) News is a new publication designed to provide those involved in parenting education with opportunities to share information, issues, and ideas in order to shape and advance the field of parenting education. The newsletter is an outgrowth of meetings during 1995 and 1996 of parenting education practitioners, researchers, funders, and program designers across the United States. ZERO TO THREE Board members on the newsletter's Advisory Board include T. Berry Brazelton and Marilyn Segal. A free introductory copy of the newsletter is available by calling Parenting Press at 800-992-6657, fax: (206) 364-0702. For more information about the developing parenting education movement, contact A. Rae Simpson, interim coordinator of the Ad Hoc Leadership Team, MIT Family Resource Center, 77 Massachusetts Avenue., Room 4-144, Cambridge, MA, 02139, tel: (617) 253-1592; fax (617) 253-2609; e-mail, rsimpson@mit.edu.

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